

COUNTY PALATINE OF LANCASTER.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1928,

WITH STATISTICAL INFORMATION FROM REPORTS OF
DISTRICT MEDICAL OFFICERS OF HEALTH.

(Presented to the County Council, November 7th, 1929)



C. Tinling & Co. Ltd., Liverpool, London and Prescott.
1929.

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REPORT OF THE MEDICAL OFFICER OF HEALTH

For the Year ended December 31st, 1928.

To the County Council of the County Palatine of Lancaster.

I have the honour to submit for your consideration the Fortieth Annual Report on the health, sanitary condition and circumstances of the Administrative County of Lancaster for the year ended 31st December, 1928.

The Ministry of Health Circular 939, dated the 13th December, 1928, indicates the lines on which the Annual Reports of district Medical Officers of Health for the year 1928 should be drawn up. These Reports are to be "ordinary reports." "Full survey reports" normally are required at intervals of not more than five years, and the next report of this character will be for the year 1930.

With a view to assisting local Medical Officers of Health in the preparation of their reports in accordance with the Ministry's instructions, and to ensure uniformity, a Summary Form was again prepared in the County Public Health Department embodying all the special requirements; from these Summaries, as supplied by the local Medical Officers of Health, much of the information given in the County Report is extracted.

The County Report reviews the progress which has been made during 1928 in public health matters in the various county districts; activities and developments are recorded which doubtless, in the future, will contribute substantially to the better health and well-being of the public generally.

STATISTICS AND SOCIAL CONDITIONS OF THE COUNTY.

Area of Administrative County.—The area of the Administrative County on the 31st December, 1928, was **1,050,889 statute acres**, or 3,553 acres less than at the beginning of the year.

The changes during the year affecting the County area were as follow:—By the Liverpool Corporation Act, 1927, portions of the Sefton Rural District, viz., the parish of Croxteth Park, area 961 acres, population 75, and the parish of West Derby Rural, area 2,592 acres, population 15,435, were transferred to the City of Liverpool on the 1st April, 1928. By the Morecambe Corporation Act, 1928, as from the 1st October, 1928, the urban district of Heysham was included within the boundary of the Borough of Morecambe, which is now re-named Morecambe and Heysham Borough.

Population (Census 1921, and Estimated 1928).—The population of the Administrative County as estimated by the Registrar-General to the middle of the year 1928 was **1,809,120**. This population relates to the County area *as constituted at the end of the year*.

In regard to the population to be taken into account in calculating the birth and death rates in this report, the Registrar-General points out that as the number of births and deaths furnished for the year includes those occurring prior to the change in the areas mentioned in the paragraph above relating to the County area, adjustment requires to be made in the above-mentioned population to make allowance for the change of area. The following adjusted figures are therefore to be used *for the calculation of the annual birth and death rates*:—

					"Adjusted" estimate.
For calculating the <i>birth-rate</i>	...	...	...	...	1,812,220
Urban districts	1,546,030	;	Rural districts	266,190.	
For calculating the <i>death-rate</i>	...	...	...	...	1,811,000
Urban districts	1,544,990	;	Rural districts	266,010.	

The population of the Administrative County as at present constituted, was at the Census of 1921, 1,743,824; the official estimate for mid-year 1928, therefore, shows an increase of 65,296. During the eight years which have elapsed since the Census, the excess of births over deaths in the County was 60,649. The rate of increase of population since the 1921 Census represents 8·6 per cent. in the rural districts and 2·8 per cent. in the urban districts.

Table 3, pages 14 to 19, shows the Census enumeration of each County district, and the estimated population for the year 1928.

The following table gives the area, population, persons per acre, and acres per person of the Administrative County distributed between the non-county boroughs, urban and rural districts :—

	Area in Acres, 31/12/1928.	Population.			Persons per Acre.	Acres per Person.
		Census, 1921.	Estimate of Population, Mid-Year, 1928.			
			For Birth- rate. (See page 7.)	For Death- rate.	Calculated on estimated population.	
Municipal Boroughs (19)...	89,037	594,025	597,320	597,070	6·70	0·14
Urban Districts (81).....	252,847	909,648	948,710	947,920	3·75	0·26
Rural Districts (19).....	709,005	240,151	263,030	262,910	0·37	2·69
Administrative County	1,050,889	1,743,824	1,809,120	1,807,900	1·72	0·58

Number of inhabited houses (1921), and number of families or separate occupiers (1921).—The number of private families and dwellings in the Administrative County as constituted at the date of the Census, 1921, is given in the table below :—

	POPULATION.								
	Census 1921.								
	Persons.	Males.	Females.	Persons per Acre.	Private Families and Dwellings.				
					No. of Private Families.	Popula- tion in Private Families.	Struc- turally Separate Dwell- ings Occu- pied.	Rooms Occu- pied.	Rooms per Person.
Urban Districts	1503673	711997	791676	4·3	347799	1456504	335962	1554513	1·03
Rural Districts	242565	117441	125124	0·3	53938	229817	52785	268964	1·17
Administrative County	1746238	829488	916800	1·7	401737	1686321	388747	1823477	1·08

Rateable value and sum represented by a penny rate.—The rateable value of the Administrative County area in 1928, according to the figures given by the local Medical Officers of Health, was £11,797,283, and a penny rate on the assessable value would produce £43,481.

Social conditions, including the chief occupations of the inhabitants, and the influence of any particular occupation on public health.—The following table shows the occupations by sex of persons aged 12 years and over at the date of the Census :—

OCCUPATION.	Administrative County.		Urban Districts.		Rural Districts.	
	Males.	Females.	Males.	Females.	Males.	Females.
Fishermen	1507	38	1340	35	167	3
Agricultural Occupations	38305	3794	14932	1427	23373	2367
Mining and Quarrying Occupations ...	75053	1892	67688	1754	7365	138
Workers in the Treatment of Non-Metalliferous Mine & Quarry products	697	194	612	188	85	6
Makers of Bricks, Pottery, and Glass ...	2497	373	1985	302	512	71
Workers in Chemical Processes ; Makers of Paints, Oils, &c.	5184	730	4752	619	432	111
Metal Workers (not Electro Plate or Precious Metals)	63927	1830	57768	1702	6159	128
Workers in Precious Metals and Electro Plate	177	47	158	41	19	6
Electrical Apparatus Makers and Fitters (not elsewhere enumerated) and Electricians	6897	1169	6128	962	769	207
Makers of Watches, Clocks and Scientific Instruments	682	90	605	61	77	29
Workers in Skins and Leather, and makers of Leather and Leather Substitute Goods (not Boots or Shoes) ...	2392	733	2030	708	362	25
Textile Workers	101514	161221	93651	147720	7863	13501
Makers of Textile Goods and Articles of Dress	10486	17198	9743	15633	743	1565
Makers of Foods, Drinks, and Tobacco	6038	4980	5472	4539	566	441
Workers in Wood and Furniture ...	19283	592	16508	519	2775	73
Makers of and Workers in Paper ; Printers, Bookbinders, Photographers, &c.	6471	3091	5832	2818	639	273
Builders, Bricklayers, Stone and Slate-workers ; Contractors	19639	111	16240	101	3399	10
Painters and Decorators (not Pottery)	6139	114	5564	107	575	7
Workers in other Materials	3312	1525	2841	1390	471	135
Workers in Mixed or Undefined Materials (not elsewhere enumerated) ...	2753	275	2447	265	306	10
Persons employed in Gas, Water, and Electricity Undertakings (not elsewhere enumerated)	2075	18	1905	18	170	...
Persons employed in Transport and Communication	43964	1920	38907	1701	5057	219
Commercial, Finance, and Insurance Occupations (excluding Clerks)	42923	19396	38625	17716	4298	1680
Persons employed in Public Administration and Defence (excluding Professional Men and Typists)	9589	1778	8096	1451	1493	327
Professional Occupations (excluding Clerical Staff)	11153	12934	9206	10671	1947	2263
Persons employed in Entertainments and Sport	1993	716	1807	682	186	34
Persons engaged in Personal Service (including Institutions, Clubs, Hotels, &c.)	10819	43854	9408	35549	1411	8305
Clerks and Draughtsmen (not Civil Service or Local Authorities) ; Typists	23990	13135	21437	11737	2553	1398
Warehousemen, Storekeepers, and Packers	14559	5350	13588	4872	971	478
Stationary Engine Drivers, Dynamo, and Motor Attendants	9319	...	8317	...	1002	...
Other and Undefined Workers ...	41186	1499	36525	1303	4661	196
Retired or not Gainfully Occupied ...	66604	438428	54159	371620	12445	66808

Under the head of " Social Conditions, etc.," Medical Officers of Health in their reports refer mainly to the nature of the chief occupations of the inhabitants. A few comment on the influence of particular occupations on the public health :—

Abram.—Rheumatism due to damp conditions causes workers loss of employment.

Chorley (B).—In the cotton industry a large percentage of female labour is employed. For the most part occupations are carried on under normally hygienic conditions.

Darwen (B).—The continued depression in the staple trade of the district has considerably affected the number of animals slaughtered in the district for food.

Middleton (B).—The health of a community reacts to its environment. Heart disease heads the list of causes of mortality amongst textile workers, labourers and others, followed by tuberculosis, cancer and pneumonia. Sixty per cent. of the industrial classes live in four-roomed houses.

Padiham.—Unemployment, still very prevalent, reacts on the health of the community owing to the lack of proper nourishment.

Westhoughton.—Unemployment, with consequent poverty, is still very prevalent; this makes for ill concerning the public health.

Whitworth.—Bronchitis in card-room operatives and amongst quarrymen seems very prevalent in the winter time. Chest troubles amongst card-room hands would be reduced if dust masks were more general. The liability among quarrymen to bronchitis as a forerunner of silicosis should be recognised.

VITAL STATISTICS.

Summary of County Statistics, 1889-1928.—The following tabular statement compares the County birth and death rates for the year 1928 with the previous year, and with the thirty-nine years (1889-1927), grouped in quinquennial periods :—

				PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
				Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Mean of 5 years—									
1889-1892	(4 years)	...	...	30·60	19·02	1·06	—	—	154
1893-1897	...	...	...	29·42	18·03	1·25	—	—	161
1898-1902	...	...	...	26·98	16·58	1·04	0·59	—	161
							(3 years)		
1903-1907	...	...	...	25·32	14·82	0·89	0·66	—	138
1908-1912	...	...	...	23·11	13·96	0·85	0·77	5·11	122
								(2 years)	
1913-1917	...	...	...	19·75	14·35	0·93	0·99	4·90	110
1918-1922	...	...	...	18·90	13·91	0·82	1·11	5·12	91
1923-1927	...	...	...	15·98	12·44	0·66	1·25	5·26	79
Year—									
1927	...	...	...	14·57	12·72	0·61	1·33	4·94	73
1928	...	...	...	14·56	11·91	0·58	1·38	6·06	69
Increase or decrease in 1928 on—									
Mean of 5 years, 1923-1927				-1·42	-0·53	-0·08	+0·13	+0·80	-10
Previous year				-0·01	-0·81	-0·03	+0·05	+1·12	-4

Births and Birth-rates.—The births registered in or belonging to the Administrative County during the year ended 31st December, 1928, numbered 26,390, compared with 26,263 in the previous year—an increase of 127. In 1926 the births numbered 27,944, or 1,554 more than in the year under report.

The sex of the children born in 1928 is shown below :—

	Males.	Females.	Total.
Urban Districts	11493	11149	22642
Rural Districts	1956	1792	3748
Administrative County	13449	12941	26390

The number of male births again exceeded those of females, the excess being equal to 1·93 per cent.; last year this percentage was 1·47, and 1·65 per cent. in 1926.

It is a remarkable coincidence that the number of births in the rural districts in 1928 was exactly the same as in 1927.

The total births in 1928 exceeded the total deaths by 4,803 ; thirty-nine years ago the excess was 18,109.

The following table shows the County, urban, and rural birth-rates for the year 1928, also the rates for each year in the preceding decennial period. For comparative purposes the birth-rates for the whole country are also given :—

	Birth-rate per 1,000 of the Estimated Population.										
	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Urban Districts ...	16·09	16·58	22·30	21·06	18·28	17·42	16·62	15·99	15·66	14·59	14·64
Rural Districts ...	16·06	16·88	22·98	18·94	17·04	16·48	16·05	15·23	15·29	14·48	14·08
Administrative County	16·08	16·62	22·97	20·76	18·11	17·29	16·54	15·89	15·61	14·57	14·56
England and Wales	17·7	18·5	25·4	22·4	20·6	19·7	18·8	18·3	17·8	16·7	16·7

Table 1, page 12, shows the County and the urban and rural district birth-rates since 1889 (the first year County statistics were available), and also the five year averages.

The County birth-rate in 1928 was the lowest on record, but the decline, as compared with the preceding year, was only 0·01 per 1,000 of the estimated population. Since 1920, the first normal year after the war period, the County birth-rate has diminished by gradual and continuous stages to the extent of 8·41 per 1,000, representing a reduction of over 15,200 births per annum, whilst since 1891 the fall represents 17·37 per 1,000, or more than 31,400 births each year.

The County birth-rate for 1928 is 2·2 per 1,000 lower than the rate for the whole of England and Wales.

Of the district birth-rates, only 6 exceeded 20 per 1,000, viz. : Widnes (B), 22·2 ; Aspull, 21·9 ; Fleetwood and Ince-in-Makerfield, each 20·6 ; Haydock, 20·5 ; and Litherland, 20·1. Reference to the 1891 report shows that 126 of the 133 County districts then had a birth-rate over 20 per 1,000.

Low birth-rates were recorded in Clitheroe (R), 9·8 ; Trawden, 9·5 ; Little Crosby, 9·4 ; Lytham Saint Anne's (B), 9·0 ; Fulwood, 8·5 ; and Grange-over-Sands, 6·8.

In 26 County districts the birth-rate in 1928 was lower than the death-rate.

The number of births in each borough, urban and rural district, and the local birth-rates are given in Table 3, pages 14 to 19.

ILLEGITIMATE BIRTHS.—The births of illegitimate children registered in 1928 numbered 958, or 83 less than in 1927. The percentage to total births was 3·63, exactly the same as the average of the preceding five years.

Deaths and Death-rates.—The total number of deaths registered in the Administrative County during the calendar year 1928, after correction as regards inward and outward transfers, was 21,587, compared with 22,916 deaths in the year 1927—a decrease of 1,329.

The sex distribution of the persons dying in 1928 is shown below :—

	Males.	Females.	Total.
Urban Districts ...	9353	9320	18673
Rural Districts ...	1460	1454	2914
Administrative County ...	10813	10774	21587

ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 1—SHOWING COUNTY BIRTH AND DEATH RATES FOR YEARS 1889—1928

YEAR.	BIRTH-RATE.			DEATH-RATE.			INFANT MORTALITY.		
	County.	Urban Districts.	Rural Districts.	County.	Urban Districts.	Rural Districts.	County	Urban Districts.	Rural Districts.
1889	30.5	31.8	29.6	17.5	18.4	16.6	160	161	125
1890	29.3	29.7	28.1	18.5	18.9	16.6	152	158	126
1891	31.93	32.45	29.48	21.09	21.70	18.19	157	160	139
1892	30.70	31.11	28.01	19.09	19.34	17.31	150	155	124
1893	30.95	31.35	28.94	19.97	20.37	17.94	177	183	145
1894	29.19	29.49	27.70	16.16	16.42	14.87	134	138	109
Average 6 years, 1889-1894	30.42	30.98	28.63	18.70	19.18	16.91	155	159	128
1895	29.82	30.23	27.57	19.16	19.63	16.57	171	178	127
1896	28.73	29.11	26.62	17.38	17.76	15.25	155	161	121
1897	28.45	28.65	27.29	17.48	17.82	15.55	169	174	138
1898	27.62	27.89	25.80	16.58	16.80	15.09	168	173	130
1899	27.09	27.31	25.53	17.60	17.88	15.65	175	181	134
Average 5 years, 1895-1899	28.34	28.63	26.56	17.64	17.97	15.62	167	173	130
1900	26.80	26.96	25.72	17.19	17.46	15.26	162	167	123
1901	26.57	26.78	25.13	16.28	16.58	14.21	161	167	118
1902	26.85	26.95	26.14	15.26	15.43	14.08	139	143	116
1903	26.77	27.04	24.96	15.22	15.44	13.69	140	143	114
1904	25.56	25.66	24.90	15.54	15.78	13.81	157	162	124
Average 5 years, 1900-1904	26.51	26.67	25.37	15.89	16.13	14.21	151	156	119
1905	25.06	25.22	23.99	14.32	14.52	12.99	132	137	101
1906	24.99	25.11	24.22	14.62	14.81	13.33	139	143	109
1907	24.23	24.47	22.60	14.40	14.59	13.11	125	129	96
1908	24.86	25.05	23.60	14.45	14.61	13.31	131	136	97
1909	23.57	23.67	22.91	13.96	14.08	13.11	115	119	87
Average 5 years, 1905-1909	24.54	24.70	23.46	14.35	14.52	13.17	128	132	98
1910	22.48	22.47	22.52	12.73	12.83	12.09	117	121	93
1911	22.64	22.88	21.15	15.05	15.33	13.25	144	148	111
1912	22.00	22.09	21.42	13.61	13.76	12.60	104	106	89
1913	22.20	22.41	20.86	14.20	14.39	13.00	124	128	100
1914	22.02	22.19	20.95	13.95	14.17	12.53	112	115	96
Average 5 years, 1910-1914	22.26	22.40	21.38	13.90	14.09	12.69	120	123	97
1915	19.78	19.91	18.95	15.32	15.60	13.57	119	123	94
1916	18.54	18.54	18.59	14.31	14.47	13.32	99	101	82
1917	16.25	16.27	16.08	13.98	14.05	13.56	96	96	94
1918	16.08	16.09	16.06	17.26	17.40	16.41	100	101	90
1919	16.62	16.58	16.88	14.06	14.01	14.40	93	94	88
Average 5 years, 1915-1919	17.45	17.47	17.31	14.98	15.10	14.25	101	103	89
1920	22.97	22.30	22.98	12.74	12.83	12.19	91	95	67
1921	20.76	21.06	18.94	12.27	12.31	11.97	88	90	76
1922	18.11	18.28	17.04	13.23	13.43	11.99	85	87	75
1923	17.29	17.42	16.48	12.30	12.44	11.45	80	82	67
1924	16.54	16.62	16.05	12.53	12.66	11.77	81	84	68
Average 5 years, 1920-1924	19.13	19.13	18.29	12.61	12.73	11.87	85	87	70
1925	15.89	15.99	15.23	12.66	12.79	11.86	82	83	71
1926	15.61	15.66	15.29	11.99	12.21	10.69	80	82	71
1927	14.57	14.59	14.48	12.72	12.86	11.94	73	74	68
1928	14.56	14.64	14.08	11.91	12.08	10.95	69	71	57

ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 2.—CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE DURING THE YEAR ENDED 31ST DECEMBER, 1928.

CAUSES OF DEATH.				Col.	ADMINIS- TRATIVE COUNTY. TOTAL DEATHS.	Sex.	AGGREGATE OF URBAN DISTRICTS.														AGGREGATE OF RURAL DISTRICTS.														Col.
							YEARS.														YEARS.														
							All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—									
ALL CAUSES		21587	M. F.	9353 9320	961 650	163 162	181 155	283 276	407 391	998 1055	2883 2511	2170 2253	1307 1867	1460 1454	131 85	23 26	24 23	41 23	63 59	132 163	418 387	343 356	285 332												
Enteric fever	1	24	M. F.	7 13	...	...	...	2 2	1 1	3 3	1 6	...	...	2 2	...	...	...	...	...	1 1	...	1 ...	...	1
Smallpox	2	5	M. F.	4 1	...	...	...	...	...	...	...	4 1	...	...	...	...	...	...	...	...	...	...	...	2
Measles	3	92	M. F.	38 45	8 10	11 18	13 14	6 3	...	...	...	...	...	6 3	3 1	1 2	2 ...	...	...	...	...	...	...	3
Scarlet fever	4	27	M. F.	11 12	...	...	5 1	3 8	1 ...	2 3	...	...	...	2 2	...	1 1	1 ...	...	...	...	...	...	...	4
Whooping cough	5	96	M. F.	35 48	17 23	11 17	6 8	...	...	...	...	1 ...	...	6 7	5 2	...	1 4	...	...	...	...	...	...	5
Diphtheria	6	109	M. F.	41 47	5 ...	3 2	12 19	20 21	...	...	1 1	...	...	15 6	...	2 1	1 2	9 3	3 ...	...	...	...	...	6			
Influenza	7	564	M. F.	276 226	4 4	3 ...	6 3	6 11	21 22	62 25	108 74	47 42	19 45	35 27	...	1 ...	...	...	1 ...	7 5	13 8	8 8	5 5	7									
Encephalitis lethargica	8	76	M. F.	34 30	...	1 ...	...	2 3	5 2	9 7	14 10	3 1	...	4 8	...	...	1 ...	1 ...	2 1	...	3 3	...	...	8						
Meningococcal meningitis	9	15	M. F.	7 5	2 ...	...	1 ...	2 3	...	1 ...	1 ...	...	...	2 1	1 ...	...	1 ...	...	...	...	...	...	...	9	
Tuberculosis of respiratory system	10	1066	M. F.	519 427	1 1	1 1	1 2	6 19	106 137	206 175	166 75	31 16	1 1	56 64	...	...	...	...	11 20	22 27	17 12	6 2	...	10							
Other tuberculous diseases	11	287	M. F.	147 109	16 9	15 10	19 8	21 17	29 22	23 22	17 13	6 8	1 ...	17 14	1 ...	1 ...	5 3	3 2	3 2	2 5	2 2	...	...	11									
Cancer, malignant disease	12	2514	M. F.	996 1193	1 1	...	2 1	1 1	6 5	48 129	505 540	333 351	100 165	152 173	...	...	1 1	...	...	5 14	80 75	46 51	20 32	12							
Rheumatic fever	13	93	M. F.	45 39	1 ...	...	1 ...	10 13	11 5	11 11	9 9	2 1	...	3 6	...	...	...	2 1	...	1 2	...	...	...	13				
Diabetes	14	271	M. F.	95 128	...	1 1	...	1 3	3 5	7 11	44 51	33 45	6 12	16 32	...	...	...	1 ...	1 ...	2 6	6 14	3 10	3 2	14								
Cerebral hæmorrhage, &c.	15	1319	M. F.	489 631	...	...	...	...	...	6 13	171 187	197 264	115 167	75 124	...	...	...	...	1 ...	3 3	20 41	32 46	19 34	15		
Heart disease	16	3506	M. F.	1348 1643	...	...	1 5	19 26	30 37	113 143	497 512	443 523	245 397	239 276	...	...	...	1 ...	5 4	14 18	70 79	87 103	62 71	16						
Arterio-sclerosis	17	1267	M. F.	599 510	...	...	...	...	...	2 1	122 102	272 203	203 204	88 70	...	...	...	...	...	...	11 11	32 24	45 33	17
Bronchitis	18	1346	M. F.	575 637	76 46	7 11	7 6	2 3	2 3	29 10	130 123	180 208	142 227	76 58	4 4	3 1	...	...	...	4 2	21 4	22 19	22 28	18								
Pneumonia (all forms)	19	1486	M. F.	787 524	152 75	62 55	45 39	34 40	33 16	122 62	229 108	79 77	31 51	102 73	13 7	6 6	3 4	6 2	6 11	13 15	32 15	17 15	6 11	19											
Other respiratory diseases	20	207	M. F.	87 78	3 3	...	2 6	7 6	3 4	9 8	30 19	25 14	8 14	20 22	1 ...	...	1 1	...	...	2 2	7 6	5 3	3 10	20								
Ulcer of stomach or duodenum	21	159	M. F.	101 38	...	...	...	...	4 ...	29 8	57 18	8 9	3 3	17 3	...	...	...	...	1 ...	3 1	8 1	3 1	2 ...	21			
Diarrhœa, &c.	22	256	M. F.	113 114	68 51	6 11	7 5	6 5	1 2	8 9	8 16	4 5	5 10	19 10	9 5	2 ...	1 1	...	...	...	2 1	3 1	2 1	22								
Appendicitis and typhlitis	23	152	M. F.	68 51	...	...	9 2	12 8	17 8	9 11	19 17	1 5	1 ...	18 15	...	...	1 ...	2 3	6 8	6 1	3 3	...	...	23					
Cirrhosis of liver	24	81	M. F.	43 24	...	...	...	...	...	3 1	29 17	10 5	1 ...	11 3	...	...	...	...	...	1 ...	9 2	1 ...	...	24
Acute and chronic nephritis	25	750	M. F.	319 341	4 ...	...	1 1	4 9	7 17	30 52	148 146	87 79	38 36	46 44	...	...	...	1 ...	...	6 4	17 9	13 15	9 12	25						
Puerperal sepsis	26	56	M. F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26
Other accidents and diseases of pregnancy and parturition	27	104	M. F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
Congenital debility and mal-formation, premature birth	28	871	M. F.	441 306	428 295	4 4	3 1	4 3	2 3	...	...	...	...	71 53	70 53	...	...	1 ...	...	...	...	...	...	28
Suicide	29	262	M. F.	153 81	...	...	...	...	8 6	37 31	77 36	25 7	6 ...	19 9	...	...	...	...	...	4 2	11 5	3 ...	1 ...	29		
Other deaths from violence	30	728	M. F.	426 179	9 8	14 6	21 7	55 27	60 12	96 24	110 29	39 21	22 45	84 39	...	2 4	1 1	7 5	16 2	13 8	28 5	9 4	8 10	30											
Other defined diseases	31	3725	M. F.	1506 1679	162 119	23 19	18 24	59 45	57 54	128 180	370 388	329 361	360 489	257 283	24 12	4 6	4 6	6 3	7 8	23 25	60 88	51 53	78 82	31											
Causes ill-defined or unknown	32	73	M. F.	43 24	4 3	1 1	1 ...	1 ...	...	5 2	20 12	11 6	...	2 4	...	...	...	...	...	1 1	1 1	...	...	32			

The County deaths in 1928 at various age-periods are given below :—

Under 1 Year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and under 75.	75 and upwards.	Total.
1827	374	383	623	920	2348	6199	5122	3791	21587

As previously stated, the decrease in the number of deaths in comparison with the previous year was 1,329 ; in the first three groups shown above—under 5 years of age—there was a diminution of 317 deaths ; from 5 to 25 years of age there was an increase of 26 deaths, and a decline of 1,038 amongst persons aged 25 years and upwards.

Table 2, here inserted, is a classified statement of the causes of death in 1928, distributed in age groups, and distinguishing the sexes, for the aggregate urban and rural districts.

*COUNTY DEATH-RATES.—The County death-rate in 1928, 11·91 per 1,000 of the estimated population, was the lowest on record, 0·81 below last year's rate, 0·53 below the County average for the five years 1923–27, but 0·2 per 1,000 above the 1928 rate for the whole of England and Wales.

The table below gives the death-rates of the County from 1918 to 1928, distinguishing the urban and rural rates, and also gives the rates for England and Wales :—

	Death-rate per 1,000 of the Estimated Population.										
	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Urban Districts...	17·40	14·01	12·83	12·31	13·43	12·44	12·66	12·79	12·21	12·86	12·08
Rural Districts ...	16·41	14·40	12·19	11·97	11·99	11·45	11·77	11·86	10·69	11·94	10·95
Administrative County.....	17·26	14·06	12·74	12·27	13·23	12·30	12·53	12·66	11·99	12·72	11·91
England & Wales	17·6	13·8	12·4	12·1	12·9	11·6	12·2	12·2	11·6	12·3	11·7

Table 1, page 12, shows the County, urban, and rural death-rates for each year since 1889, and also the quinquennial averages.

The highest district death-rates in 1928 were recorded in Grange-over-Sands, 17·1 ; Lees and Whitworth, each 15·9 ; Ulverston, 15·2 ; Preesall, 15·1 ; Morecambe and Heysham (B), Mossley (B) and Padiham, each 14·9 ; Longridge, 14·8 ; and Carnforth and Trawden, each 14·7. The annual death-rates of comparatively small districts are liable to fluctuate considerably ; the following County districts had the highest death-rates extending over a period of five years, 1924–1928 : Baeup (B), 15·5 ; Whitworth, 15·3 ; Littleborough, Longridge, and Poulton-le-Fylde, each 15·1 ; Kirkham, Morecambe and Heysham (B), and Padiham, each 14·9 ; Heywood (B), 14·8 ; and Aspall, 14·7.

The following districts had the lowest death-rates in 1928 :—Little Hulton, 9·5 ; Fylde (R), 9·4 ; Huyton-with-Roby and Prestwich, each 9·1 ; Whiston (R), 8·5 ; Rainford, 8·3 ; Clitheroe (R), 8·1 ; Irlam, 8·0 ; and Little Crosby, 6·0. Covering a period of five years, 1924–1928, the following low rates were recorded :—Formby, 9·6 ; Huyton-with-Roby, 9·5 ; Withnell, 9·4 ; Prestwich and Whiston (R), each 9·3 ; Clitheroe (R), 9·0 ; Irlam, 8·7 ; and Little Crosby, 6·7.

Details of the deaths in the various sanitary areas, classified under certain headings are given in Tables 3 and 4, pages 14 to 24, and the mortality rates of each district in 1928 are compared on pages 161 to 185, with the year 1927, and with the averages of the preceding five years.

* The death-rates given in this Report, including the general death-rate, the cancer rate, and the maternal mortality rate for the County area and for the County districts, are "crude" rates, that is, they are not "standardized" or "corrected."

ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 3—AREA, POPULATION, NO. OF INHABITED HOUSES, &c., IN EACH DISTRICT, TOGETHER WITH THE NUMBERS OF BIRTHS AND DEATHS REGISTERED DURING 1928.
(NOTE:—For Causes of Death, see Table 4, p. 20.)

URBAN DISTRICTS.	Area in Statute Acres.	POPULATION AT ALL AGES.		No. of inhabited houses, Census, 1921.	No. of families or separate occupiers, Census, 1921.	BIRTHS.			DEATHS.			INFANT MORTALITY.			Tuber- culosis of Respiratory System. Death Rate per 1,000.
		Census, 1921.	Estimate, Mid-year 1928.			Number Registered.			Number Registered.			Number Deaths under One Year.	Mortality per 1,000 Registered Births.	Number of Deaths of Illegiti- mate Children.	
						Birth Rate per 1,000			Death Rate per 1,000						
						M.	F.	Total.	M.	F.	Total.				

Abram ...	...	...	...	1984	6853	7013	1279	1507	52	60	112	15.9	3	41	40	81	3	26	...	0.42
Accrington (B) ...	...	...	...	3427	43595	42940	10989	11226	286	258	544	12.6	21	272	283	555	42	77	5	0.72
Adlington ...	...	...	...	1062	4390	4340	953	953	27	25	52	11.9	1	21	24	45	6	115	...	0.69
Ashton-in-Makerfield ...	...	...	...	6251	22475	22780	4024	4876	188	166	354	15.5	9	137	118	255	38	107	2	0.39
Ashton-under-Lyne (B) ...	...	...	...	1982	51409	51960	12253	12421	364	383	747	14.3	34	336	386	722	52	69	4	1.05
Aspull ...	...	...	...	1906	7851	7620	1604	1795	79	88	167	21.9	7	60	41	101	18	107	1	0.65
Atherton ...	...	...	...	2264	19856	20110	4009	4024	168	169	337	16.7	8	99	107	206	21	62	1	0.69
Audenshaw ...	...	...	...	1241	7876	8524	1856	1899	62	57	119	13.9	4	42	49	91	6	50	...	0.46
Bacup (B) ...	...	...	...	6121	21263	20550	5655	5669	156	161	317	15.4	11	129	161	290	33	104	4	0.34
Barrowford ...	...	...	...	1387	5626	5479	1520	1546	33	32	65	11.8	3	33	41	74	5	76	...	Nil.
Billinge-and-Winstanley ...	...	...	...	4596	5168	5201	955	1006	41	21	62	11.9	2	26	25	51	8	129	...	1.34
Blackrod ...	...	...	...	2392	3867	3842	852	861	38	35	73	19.0	2	26	17	43	3	41	...	0.26
Brierfield ...	...	...	...	807	8341	8063	2074	2091	46	52	98	12.1	4	44	44	88	3	30	...	0.37
Carnforth ...	...	...	...	1504	3249	3117	740	767	33	20	53	17.0	5	20	26	46	3	56	1	1.28
Chadderton ...	...	...	...	3082	28721	28100	6595	6662	182	182	364	12.9	10	183	175	358	27	74	2	0.74
Chorley (B) ...	...	...	...	3614	30581	31580	6944	6973	261	246	507	16.0	9	189	207	396	41	80	2	0.60
Church ...	...	...	...	528	6746	6575	1607	1642	47	46	93	14.1	...	43	45	88	5	53	...	0.45
Clayton-le-Moors ...	...	...	...	1060	8579	8500	2014	2033	57	73	130	15.2	4	38	48	86	10	76	...	0.35
Clitheroe (B) ...	...	...	...	2386	12202	12100	2997	3066	64	88	152	12.5	7	80	73	153	8	52	2	0.33
Colne (B) ...	...	...	...	5062	24752	24740	6311	6401	148	171	319	12.8	23	131	169	300	21	65	2	0.44

TABLE 3—continued

URBAN DISTRICTS.	POPULATION AT ALL AGES.		No. of inhabited houses, Census, 1921.	No. of families or separate occupiers, Census, 1921.	BIRTHS.			DEATHS.			INFANT MORTALITY.			Tuber- culosis of Respiratory System. Death Rate per 1,000.				
	Area in Statute Acres.	Census, 1921.			Estimate, Mid-year 1928.	No. of Births.			No. of Deaths.			No. of Infant Mortality.						
						Birth Rate per 1,000.			Death Rate per 1,000.			Mortality of Registered Births.						
						M.	F.	Total.	M.	F.	Total.	Number Registered.	Number Registered.		Number Registered.	Number of Deaths under One Year.	Mortality of Registered Births.	Number of Deaths of Illegitimate Children.
Crompton ...	2865	14917	15000	3567	3605	100	95	195	13.0	11	88	84	172	11.4	13	66	1	0.73
Croston ...	2352	1971	2011	475	494	11	19	30	14.9	...	14	13	27	13.4	3	100	...	Nil.
Dalton-in-Furness ...	7994	12302	10500	2684	2909	94	89	183	17.4	15	69	72	141	13.4	15	81	...	1.04
Darwen (B) ...	5959	37906	38150	9918	10145	242	218	460	12.0	18	241	251	492	12.8	31	67	1	0.49
Denton ...	2594	17620	17600	4304	4344	114	112	226	12.8	7	97	111	208	11.8	12	53	...	0.56
Droylsden ...	1009	13878	13690	3110	3158	100	106	206	15.0	6	78	69	147	10.7	11	53	1	0.51
Eccles (B) ...	2057	44242	45200	9783	10043	384	359	743	16.4	27	248	251	499	11.0	49	65	2	0.48
Failsworth ...	1072	16973	16840	3719	3914	119	126	245	14.5	6	111	97	208	12.3	16	65	2	0.47
Farnworth ...	1504	27894	29500	6118	6186	224	199	423	14.3	10	161	178	339	11.4	32	75	3	0.54
Fleetwood ...	2565	19438	22470	3248	3894	231	234	465	20.6	16	123	129	252	11.2	32	68	...	0.62
Fornby ...	5613	6318	7492	1251	1327	41	54	95	12.6	8	44	34	78	10.4	6	63	2	0.53
Fulwood ...	2116	6595	*7261 †6781	1067	1132	33	29	62	8.5	2	41	41	82	12.0	2	32	...	0.44
Golborne ...	1679	7183	7477	1411	1555	52	49	101	13.5	4	47	43	90	12.0	7	69	...	0.40
Grange-over-Sands ...	1883	2920	2329	448	457	7	9	16	6.8	1	12	28	40	17.1	1	62	...	0.42
Great Crosby ...	1867	13721	16460	2803	2957	108	103	211	12.8	6	77	92	169	10.2	10	47	1	0.42
Great Harwood ...	2868	13605	14000	3337	3364	94	107	201	14.3	5	90	74	164	11.7	13	64	...	0.21
Haslingden (B) ...	8203	17486	17100	4574	4597	96	99	195	11.4	8	107	99	206	12.0	16	82	3	0.29
Haydock ...	2411	10330	10840	1796	1839	111	112	223	20.5	5	57	48	105	9.6	15	67	...	0.36
Heywood (B) ...	3658	26693	26080	6692	6707	213	184	397	15.2	17	162	206	368	14.1	33	83	3	0.57
Hindley ...	2612	23563	24160	4852	5458	200	156	356	14.7	8	130	142	272	11.2	32	89	...	0.78
Horwich ...	3257	15621	16850	3556	3588	124	116	240	14.2	3	91	100	191	11.3	20	83	...	0.59
Huyton-with-Roby ...	3053	5172	5117	1012	1030	34	30	64	12.5	2	29	18	47	9.1	3	46	...	0.39

* Population for birth-rate.

† Population for death-rate.

TABLE 3—continued.

URBAN DISTRICTS.	Area in Statute Acres.	POPULATION AT ALL AGES.		No. of inhabited houses, Census, 1921.	No. of families or separate occupiers, Census, 1921.	BIRTHS.				DEATHS.				INFANT MORTALITY.			Tuber- culosis of Respiratory System. Death Rate per 1,000.	
		Census, 1921.	Estimate, Mid-year 1928.			Number Registered.			Birth Rate per 1,000	No. of Illegitimate Births.	Number Registered.			Death Rate per 1,000	Number of Deaths under One Year.	Mortality per 1,000 Registered Births.		Number of Deaths of Illegitimate Children.
						M.	F.	Total.			M.	F.	Total.					
Ince-in-Makerfield	2320	22855	24020	4314	4876	244	251	495	20.6	19	145	139	284	44	88	3	0.49	
Irlam	4717	9471	12220	1912	1954	101	132	233	19.0	2	56	42	98	9	38	1	0.73	
Kearsley	1004	9610	10380	2201	2217	71	69	140	13.4	2	58	74	132	3	21	...	1.44	
Kirkham	857	3815	4126	861	865	35	27	62	15.0	3	23	26	49	4	64	1	1.21	
Lancaster (B)	3482	40212	*41500 †41250	8353	8628	365	312	677	16.3	42	258	230	488	48	70	4	0.72	
Latham and Burscough	13642	7633	*8033 †7963	1586	1632	52	57	109	13.5	4	47	50	97	2	18	...	0.25	
Lees	288	4789	4945	1202	1211	34	48	82	16.5	1	37	42	79	7	85	1	0.20	
Leigh (B)	6359	45332	46710	9276	10230	396	355	751	16.0	22	312	284	596	70	93	3	0.74	
Leyland	3725	9031	10260	2121	2196	85	68	153	14.9	6	73	49	122	15	98	1	0.48	
Litherland	857	16384	16410	3121	3446	149	181	330	20.1	8	92	89	181	26	78	1	0.91	
Littleborough	7855	11488	11510	3091	3101	90	86	176	15.2	11	68	84	152	8	45	...	0.26	
Little Crosby	1919	1123	1160	201	207	6	5	11	9.4	1	4	3	7	2	181	...	Nil.	
Little Hulton	1699	7910	7918	1722	1766	62	51	113	14.2	3	41	35	76	5	44	...	0.63	
Little Lever	808	4809	5138	1180	1186	31	32	63	12.2	4	37	35	72	6	95	...	0.38	
Longridge	3285	4302	4180	1032	1039	35	45	80	19.1	2	30	32	62	6	75	...	0.23	
Lytham Saint Anne's (B)	5806	25877	25940	4439	4744	114	121	235	9.0	20	163	140	303	8	34	2	0.61	
Middleton (B)	4775	28290	29010	6872	6894	221	203	424	14.6	12	176	149	325	27	63	1	0.65	
Milnrow	5194	8390	8774	2234	2273	49	49	98	11.1	3	49	60	109	4	40	...	1.02	
‡ Morecambe and Heysham (B)	3769	24205	22170	3801	4013	121	101	222	10.0	14	162	170	332	13	58	...	0.54	
Mossley (B)	3624	12703	12030	3163	3172	84	71	155	12.8	7	90	90	180	16	103	1	0.24	
Nelson (B)...	3465	39841	39560	9973	10115	248	208	456	11.5	24	258	230	488	25	54	2	0.48	
Newton-in-Makerfield	3105	18772	19720	3797	3931	168	160	328	16.6	8	99	96	195	22	67	1	0.55	
Norden	5358	4066	4426	1089	1094	30	27	57	12.8	2	29	30	59	8	140	...	0.90	

* Population for birth-rate.

URBAN DISTRICTS.	Area in Statute Acres.	POPULATION AT ALL AGES.		No. of inhabited houses, Census, 1921.	No. of families or separate occupiers, Census, 1921.	BIRTHS.			DEATHS.			INFANT MORTALITY.			Tuber- culosis of Respiratory Sys- em. Death Rate per 1,000.			
		Census, 1921.	Estimate, Mid-year 1923.			Number Registered.			Birth Rate per 1,000	No. of Illegitimate Births.	Number Registered.		Death Rate per 1,000	Number of Deaths under One Year.		Mortality per 1,000 Registered Births.	Number of Deaths of Illegiti- mate Children.	
						Total.					M.	F.						Total.
						M.	F.	Total.										
Ormskirk ...	593	7405	7408	1477	1553	50	72	122	16.4	3	45	45	90	3	24	0.80		
Orrell ...	1617	6773	7236	1451	1618	52	60	112	15.4	2	36	37	73	10	89	Nil.		
Oswaldtwistle ...	4885	15125	14850	3671	3802	110	94	204	13.7	6	93	109	202	16	78	0.60		
Padiham ...	970	12471	11870	3144	3170	95	72	167	14.0	10	93	84	177	19	113	0.33		
Poulton-le-Fylde ...	914	2732	3021	644	684	25	22	47	15.5	1	19	19	38	3	63	Nil.		
Preesall ...	3277	1867	2049	383	396	13	23	36	17.5	...	19	12	31	1	27	1.46		
Preseot ...	409	9044	10110	1854	1947	106	94	200	19.7	4	51	57	108	10	50	0.49		
Prestwich ...	2448	18750	21670	3878	3940	137	131	268	12.3	10	99	100	199	13	48	0.55		
Radcliffe ...	3082	24759	25380	6088	6152	178	156	334	13.1	13	184	167	351	25	74	0.63		
Rainford ...	5877	3495	3820	682	691	31	30	61	15.9	2	17	15	32	3	49	0.52		
Ramsbottom ...	6423	15381	14320	3902	3930	106	95	201	14.0	8	75	88	163	7	34	0.55		
Rawtenstall (B)	9528	28376	28990	7371	7421	185	182	367	12.6	13	185	202	387	26	70	0.41		
Rishton ...	2986	7018	6958	1729	1765	44	36	80	11.4	3	41	36	77	10	125	1.00		
Royton ...	2147	17194	17310	4052	4069	122	98	220	12.7	11	135	113	248	22	100	1.32		
Skelmersdale ...	1942	6084	6834	1320	1426	58	50	108	15.8	4	43	32	75	6	55	0.43		
Standish-with-Langtree ...	3266	7293	7425	1446	1566	57	49	106	14.2	2	48	26	74	8	75	0.53		
Stretford ...	3240	46535	52110	10200	10589	377	391	768	14.7	39	319	287	606	55	71	0.78		
Swinton and Pendlebury	2284	30916	34010	6544	6860	238	238	476	13.9	14	174	186	360	34	71	0.49		
Thornton Cleveleys ...	3001	6182	9045	1136	1225	66	70	136	15.0	6	40	55	95	8	58	0.33		
Tottington ...	2544	6760	6631	1703	1716	33	34	67	10.1	1	33	49	82	3	44	Nil.		
Trawden ...	6815	2762	2710	743	746	8	18	26	9.5	1	19	21	40	1	38	0.36		
Turton ...	17334	12154	12390	3024	3087	64	61	125	10.0	2	79	87	166	12	96	0.56		
Tyldesley-with-Shakerley	2490	15650	15560	3123	3188	138	126	264	16.9	10	111	85	196	21	79	0.38		

TABLE 3—continued.

URBAN DISTRICTS.	Area in Statute Acres.	POPULATION AT ALL AGES.		No. of inhabited houses, Census, 1921.	No. of families or separate occupiers, Census, 1921.	BIRTHS.			DEATHS.			INFANT MORTALITY.			Tuber- culosis of Respiratory System. Death Rate per 1,000.			
		Census, 1921.	Estimate, Mid-year 1923.			Number Registered.			Birth Rate per 1,000	No. of Illegitimate Births.	Number Registered.			Death Rate per 1,000		Number of Deaths under One Year.	Mortality per 1,000 Registered Births.	Number of Deaths of Illegiti- mate Children.
						M.	F.	Total.			M.	F.	Total.					
Ulverston ...	3196	10121	9104	2293	2390	63	61	124	68	71	139	9	72	...	0.43			
Upholland ...	4686	5527	5896	1075	1143	42	48	90	42	25	67	8	88	...	0.50			
Urmston ...	991	8297	8020	1970	2008	44	53	97	43	56	99	2	20	1	0.87			
Walton-le-Dale ...	4656	12156	12440	2787	2820	73	96	169	68	79	147	15	88	1	0.80			
Wardle ...	3192	4468	4674	987	990	33	27	60	26	25	51	2	33	...	0.21			
Waterloo-with-Seaforth ...	986	29624	*31860 †31620	6016	6711	268	267	535	193	194	387	36	67	5	1.10			
Westboughton ...	5560	15592	17510	3310	3410	129	112	241	84	96	180	13	53	2	0.51			
Whitefield ...	1403	6902	7714	1693	1698	63	52	115	49	44	93	11	95	...	0.77			
Whitworth ...	4483	8779	8565	2368	2384	61	65	126	66	71	137	10	79	2	0.93			
Widnes (B) ...	5760	38860	41010	7293	7592	455	457	912	263	205	468	72	78	1	0.70			
Withnell ...	3705	3236	3409	774	801	25	21	46	19	18	37	2	43	...	0.88			
Worsley ...	5434	13929	14720	3334	3400	89	91	180	100	86	186	12	66	...	0.54			
Total Urban Districts ...	341884	1503673	*1546030 †1544990	335962	347799	11493	11149	22642	9353	9320	18673	1611	71	98	0.61			

RURAL DISTRICTS.

Barton-upon-Irwell ...	6762	10110	12830	2346	2401	99	109	208	80	70	150	16	76	...	0.70
Blackburn ...	19915	9849	11200	2317	2340	69	51	120	56	61	117	6	50	1	0.44
Burnley ...	41702	19180	19200	4880	4927	112	126	238	113	132	245	18	75	2	0.52
Bury ...	12017	9466	9370	2343	2382	69	68	137	51	51	102	6	43	...	0.21
Chorley ...	39989	21837	22250	4804	4895	190	139	329	123	117	240	22	66	...	0.40
Clitheroe ...	32170	6758	8958	1476	1484	48	40	88	38	35	73	3	34	...	0.11

RURAL DISTRICTS.	Area in Statute Acres.	POPULATION AT ALL AGES.		No. of inhabited houses, Census, 1921.	No. of families or separate occupiers, Census, 1921.	BIRTHS.			DEATHS.			INFANT MORTALITY.			Tuberculosis of Respiratory System. Death Rate per 1,000.			
		Census, 1921.	Estimate, Mid-year 1928.			Number Registered.			Birth Rate per 1,000	No. of Illegitimate Births.	Number Registered.			Death Rate per 1,000		Number of Deaths under One Year.	Mortality per 1,000 Registered Births.	Number of Deaths of Illegitimate Children.
						M.	F.	Total.			M.	F.	Total.					
Fylde	38633	12582	16180	2582	2659	128	115	243	15.0	15	73	80	153	9.4	16	65	2	0.24
Garstang	57491	10757	11560	2346	2375	107	109	216	18.6	7	74	62	136	11.7	9	41	...	0.25
Lancaster	54628	9734	9321	2082	2152	74	72	146	15.6	4	52	60	112	12.0	8	54	...	0.32
Leigh	11574	10714	11780	2155	2284	112	83	195	16.5	6	53	72	125	10.6	10	51	1	0.50
Linchurst	4689	9347	*9209 †9029	2155	2158	66	55	121	13.1	4	47	56	103	11.4	7	57	...	0.22
Lunesdale	76267	6654	6318	1520	1542	36	47	83	13.1	4	36	36	72	11.3	2	24	...	0.47
Preston	53000	23007	28060	4556	4677	206	187	393	14.0	10	155	145	300	10.6	18	45	...	0.35
†Sefton	7136	2537	†2397	912	931	55	47	102	18.5	4	40	32	72	13.0	14	137	1	1.09
Ulverston	127485	18523	16500	4215	4281	132	109	241	14.6	16	116	106	222	13.4	11	45	1	0.90
Warrington	18955	12129	16030	2589	2662	108	96	204	12.7	6	82	77	159	9.9	14	68	...	0.62
West Lancashire	61797	21151	22880	4529	4659	152	141	293	12.8	10	134	129	263	11.4	13	44	...	0.30
Whiston	33099	19523	22610	3616	3694	146	160	306	13.5	8	98	95	193	8.5	17	55	1	0.48
Wigan	11696	6293	6437	1362	1435	47	38	85	13.2	2	39	38	77	11.9	6	70	...	0.62
Total Rural Districts	709005	240151	*263090 †262910	52785	53938	1956	1792	3748	14.08	130	1460	1454	2914	10.95	216	57	9	0.45
Total Urban Districts	341884	1503673	*1546030 †1544990	335962	347799	11493	11149	22642	14.64	828	9353	9320	18673	12.08	1611	71	98	0.61
Total Administrative County	1050889	1743824	\$1809120 \$1807900	388747	401737	13449	12941	26390	14.56	958	10813	10774	21587	11.91	1827	69	107	0.58

* Population for birth-rate.
† From the 1st April, 1928, Croxteth Park (area 961, population 75) and West Derby Rural (area 2592, population 15435) were transferred to Liverpool C.B. The births and deaths exclude those in the transferred area from 1st April, 1928. The estimated population, mid-year, 1928, is 2397. This estimate relates to the area as constituted at the end of the year, but as the births and deaths include, so far as relates to the portion of the year prior to the change, those occurring in the old area, an adjusted population, 5497, has been used for the calculation of the birth and death rates.
§ For the purpose of calculating the County birth and death rates, the Registrar-General's estimated populations are, for birth-rate 1,812,220, for death-rate, 1,811,000 (see page 7).

TABLE 4—CAUSES OF DEATH IN EACH URBAN AND RURAL DISTRICT IN THE YEAR 1928.

URBAN DISTRICTS.		MORTALITY FROM SUBJOINED CAUSES.																																		
		Total No. of Deaths from all causes.	Enteric fever.	Smallpox.	Measles.	Scarlet fever.	Whooping cough.	Diphtheria.	Influenza.	Encephalitis lethargica.	Meningococcal meningitis.	Tuberculosis of respiratory system.	Other tuberculous diseases.	Cancer, malignant disease.	Rheumatic fever.	Diabetes.	Cerebral hæmorrhage, &c.	Heart disease.	Arterio-sclerosis.	Bronchitis.	Pneumonia (all forms).	Other respiratory diseases.	Ulcer of stomach or duodenum.	Diarrhoea, &c. (under 2 years).	Appendicitis and typhlitis.	Cirrhosis of liver.	Acute and chronic nephritis.	Puerperal sepsis.	Other accidents & diseases of pregnancy & parturition.	Congenital debility and malformation, premature birth.	Suicide.	Other deaths from violence.	Other defined diseases.	Causes ill-defined or unknown.	Special causes included in foregoing.	
Abram	...	...	...	...	...	...	...	4	...	...	3	...	5	...	1	4	12	3	5	14	...	...	...	...	...	1	3	1	...	1	1	7	16	...	...
Acerington (B)	...	...	...	...	1	1	1	14	1	...	31	8	67	...	5	34	108	12	29	36	2	4	5	3	2	14	...	...	3	23	7	14	125	5	1 Polomyelitis
Adlington	...	...	...	...	...	1	...	2	...	...	3	...	6	...	1	2	7	4	3	4	1	...	...	...	...	1	...	...	1	2	...	1	6	...	...
Ashton-in-Makerfield	6	1	10	1	1	9	7	24	...	2	20	33	3	13	31	3	2	6	3	19	1	14	42	4	1 Polomyelitis
Ashton-under-Lyne (B)	...	4	...	5	1	1	6	12	2	1	55	7	68	2	11	42	134	36	50	49	2	2	7	2	1	21	2	...	6	25	11	18	137	2	1 Polomyelitis	
Aspull	...	...	...	...	...	2	3	2	...	...	5	1	9	...	1	4	12	6	9	9	...	1	...	...	1	2	...	...	...	5	...	5	21	2	...
Atherton	...	...	...	2	...	...	1	9	1	...	14	3	19	2	2	6	26	22	5	26	1	3	1	1	1	12	2	...	1	8	2	9	27	...	...
Audenshaw	...	...	...	...	...	...	...	1	...	...	4	1	17	...	2	2	19	5	3	6	...	...	1	...	...	...	...	...	1	1	2	3	23	...	...
Bacup (B)	...	2	2	11	2	1	7	1	20	3	...	31	46	5	31	15	2	1	1	1	1	2	3	1	...	4	15	6	5	68	4	...
Barrowford	...	...	...	...	...	2	1	1	1	...	...	...	8	...	1	9	11	4	2	3	...	...	1	1	1	...	1	...	...	2	...	5	17	1	...
Billinge-and-Winstanley	...	...	...	...	...	1	...	3	...	...	7	1	1	...	1	2	3	1	...	10	...	...	...	...	...	3	...	...	1	2	1	2	12	...	...
Blackrod	...	...	...	...	...	...	...	...	...	...	1	...	5	...	...	2	4	7	2	6	...	...	...	1	...	2	...	...	...	2	...	...	11	...	...
Brierfield	...	...	...	...	...	...	2	1	...	...	3	1	16	...	...	3	15	3	7	6	...	...	...	2	...	2	...	...	1	1	...	...	25	...	...
Carnforth	...	...	...	...	1	...	...	...	...	...	4	1	8	1	1	3	5	...	5	4	...	...	...	1	...	...	...	...	...	1	...	1	10	...	...
Chadderton	...	...	...	1	...	1	4	11	1	...	21	4	45	...	7	26	58	18	36	13	4	1	...	1	1	15	...	...	3	11	4	10	61	1	...
Chorley (B)	...	1	...	1	...	6	2	15	1	...	19	5	40	2	2	26	58	33	22	24	3	3	8	3	3	9	1	...	3	22	6	15	63	...	1 Polomyelitis	
Church	...	...	...	...	1	...	...	...	...	...	3	3	10	...	3	9	13	5	5	6	...	...	...	1	...	4	...	...	...	3	1	1	18	2	...
Clayton-le-Moors	...	...	...	...	...	1	1	2	1	...	3	...	10	2	2	7	11	3	5	5	...	1	1	1	1	...	...	1	1	5	1	2	20	...	...
Clitheroe (B)	...	1	...	...	...	...	1	2	...	1	4	3	23	...	3	9	31	9	12	14	1	1	2	2	...	5	1	...	...	2	3	7	16	...	...
Colne (B)	...	1	...	...	...	...	1	5	...	...	11	8	36	...	3	24	60	28	16	19	1	...	2	1	1	1	8	...	2	8	4	7	52	2	...
Crompton	...	...	...	2	...	2	...	10	...	...	11	3	22	...	1	6	27	13	13	5	1	3	2	1	...	7	1	1	1	8	1	2	30	...	...
Croston	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	4	4	...	2	...	...	...	...	...	...	...	1	1	3	2	...	6	...	...
Dalton-in-Furness	...	...	...	...	...	...	1	4	2	...	11	7	14	1	4	11	28	1	8	4	1	...	3	...	...	2	...	...	1	8	3	6	21	...	...

MORTALITY FROM SUBJOINED CAUSES.

URBAN DISTRICTS.		Total No. of Deaths from all causes.	Enteric fever.	Smallpox.	Measles.	Scarlet fever.	Whooping cough.	Diphtheria.	Influenza.	Encephalitis lethargica.	Meningococcal meningitis.	Tuberculosis of respiratory system.	Other tuber- culous diseases.	Cancer, malign- ant disease.	Rheumatic fever.	Diabetes.	Cerebral hæmorrhage, &c.	Heart disease.	Arterio-sclerosis.	Bronchitis.	Pneumonia (all forms).	Other respira- tory diseases.	Ulcer of stomach or duodenum.	Diarrhœa, &c. (under 2 years).	Appendicitis and typhlitis.	Cirrhosis of liver.	Acute and chronic nephritis.	Puerperal sepsis.	Other accidents & diseases of preg- nancy & parturition.	Congenital debility and malformation, premature birth.	Suicide.	Other deaths from violence.	Other defined diseases.	Causes ill-defined or unknown.	Special causes in- cluded in- foregoing.	
Denton	...	208	...	...	...	...	...	1	4	1	1	10	3	25	1	3	13	32	14	10	12	1	1	1	1	1	2	6	...	2	5	3	8	47	1	1
Droylsden	...	147	...	...	1	...	...	1	1	...	...	7	1	22	1	3	6	30	9	10	13	1	1	2	1	2	2	5	...	...	4	2	8	15	...	...
Eccles (B)	...	499	...	...	6	1	2	2	11	1	...	22	9	64	2	9	30	72	16	37	30	2	2	6	6	2	2	18	2	2	22	6	19	98	...	...
Failsworth...	...	208	1	...	4	1	1	2	6	2	...	8	3	26	1	3	8	22	5	22	18	5	1	5	...	...	1	11	...	2	9	1	5	35	...	...
Farnworth...	...	339	...	...	1	...	...	3	10	...	...	16	6	36	5	7	13	62	21	15	31	4	1	1	3	...	13	1	2	16	1	10	61	...	...
Fleetwood	...	252	...	1	1	...	2	1	2	...	...	14	6	29	3	4	24	37	...	22	15	2	2	2	3	1	4	7	2	2	15	1	8	44	...	...
Formby	...	78	...	...	...	1	1	...	3	...	...	4	3	9	...	1	3	12	12	...	3	4	2	...	...	2	3	...	...	2	1	3	9	...	...
Fulwood	...	82	...	...	...	...	...	...	1	...	...	3	1	12	...	...	7	19	4	5	4	...	...	...	...	6	...	6	...	...	1	...	6	13	...	...
Golborne	...	90	...	...	...	...	...	...	3	...	...	3	...	7	...	1	3	17	13	4	6	3	1	...	...	3	...	2	...	1	3	1	3	15	1	...
Grange-over-Sands	...	40	...	...	...	...	...	...	1	1	...	1	...	5	1	...	2	6	5	...	1	...	...	...	1	...	...	3	...	...	...	...	...	13	...	...
Great Crosby	...	169	...	...	1	...	...	1	9	1	...	7	...	22	1	1	11	25	8	8	14	3	2	...	...	1	...	6	...	...	5	2	7	33	1	...
Great Harwood	...	164	...	...	...	...	1	2	6	2	...	3	2	22	1	3	14	28	3	16	9	1	1	2	1	1	...	5	1	...	7	1	4	28	1	...
Haslingden (B)	...	206	1	...	...	...	...	2	7	...	...	5	1	14	...	3	19	45	8	8	13	6	4	1	2	...	13	1	...	8	3	5	36	1	...	
Haydock	...	105	...	...	4	...	...	...	5	1	...	4	...	9	...	1	3	19	6	9	6	5	...	...	4	1	...	...	...	1	8	3	8	...	...
Heywood (B)	...	368	...	...	6	...	...	2	8	2	...	15	4	54	...	3	16	69	23	30	27	4	1	2	...	...	1	14	1	1	20	7	8	50	...	...
Hindley	...	272	...	...	1	3	...	...	6	...	...	19	6	32	2	1	8	38	14	23	28	2	1	3	2	3	...	1	1	1	18	6	10	42	3	...
Horwich	...	191	...	...	...	...	1	2	4	1	...	10	2	29	...	1	12	36	14	7	11	2	2	3	2	3	2	4	...	...	12	5	4	24	...	...
Huyton-with-Roby	...	47	...	...	...	1	...	...	1	...	...	2	1	8	...	1	4	5	...	3	3	1	2	1	2	...	...	...	...	2	...	...	3	7	...	...
Ince-in-Makerfield	...	284	...	...	...	...	5	...	8	4	...	12	4	17	3	1	20	30	13	27	44	...	2	4	2	...	5	...	1	16	1	14	50	1	...	
Irlam	...	98	...	...	...	...	...	3	7	...	...	9	3	10	...	1	1	16	8	5	7	...	...	1	...	1	...	2	2	1	5	...	4	12	...	...
Kearsley	...	132	...	...	...	...	...	1	3	...	...	15	1	12	1	1	3	16	11	9	6	1	1	...	...	...	6	...	1	...	3	1	4	36	...	...
Kirkham	...	49	...	...	...	...	...	...	1	...	...	5	...	6	...	2	5	3	1	1	4	...	...	...	...	1	...	...	1	...	2	2	3	12	...	...
Lancaster (B)	...	488	1	...	...	...	1	...	13	1	...	30	6	82	1	3	31	83	17	28	31	8	2	5	5	1	12	1	1	22	3	13	86	1	...	
Lathom and Burscough	...	97	...	...	...	...	1	...	6	...	...	2	1	17	1	...	5	18	2	3	4	2	...	...	...	1	...	3	...	2	1	2	1	24	1	...

TABLE 4—continued.

URBAN DISTRICTS.		MORTALITY FROM SUBJUNED CAUSES.																											Total No. of Deaths from all causes.							
		Enteric fever.	Smallpox.	Measles.	Scarlet fever.	Whooping cough.	Diphtheria.	Influenza.	Encephalitis lethargica.	Meningococcal meningitis.	Tuberculosis of respiratory system.	Other tuber- culous diseases.	Cancer, malign- ant disease.	Rheumatic fever.	Diabetes.	Cerebral hæmorrhage, &c.	Heart disease.	Arterio-sclerosis.	Bronchitis.	Pneumonia (all forms).	Other respira- tory diseases.	Ulcer of stomach or duodenum.	Diarrhoea, &c. (under 2 years).	Appendicitis and typhlitis.	Cirrhosis of liver.	Acute and chronic nephritis.	Puerperal sepsis.	Other accidents & diseases of preg- nancy & parturition.	Congenital debility and malformation, premature birth.	Suicide.	Other deaths from violence.	Other defined diseases.	Causes ill-defined or unknown.	Special causes in- cluded in foregoing.		
Lees	2	1	...	...	1	2	8	...	...	5	14	8	5	8	1	...	...	...	...	...	2	...	1	3	...	4	14	...	...
Leigh (B)	1	15	...	10	1	19	3	1	35	7	72	3	...	4	37	59	46	50	48	6	4	10	2	2	21	2	3	26	7	17	83	2	...	
Leyland	1	...	3	...	...	5	2	9	...	3	6	15	8	10	11	2	3	...	...	2	...	4	...	1	6	1	6	24	...	...
Litherland	3	...	5	2	4	...	...	15	3	14	1	5	9	15	9	8	15	3	1	4	1	...	9	...	...	3	8	3	10	30	1	...	
Littleborough	1	8	1	...	3	2	19	1	1	10	20	13	21	7	2	3	...	...	1	...	4	...	...	6	...	6	23	...	...
Little Crosby	1	...	...	...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	1	...	...
Little Hulton	5	4	5	2	12	6	2	6	2	2	2	...	3	2	...	2	2	3	2	16
Little Lever	2	...	...	2	...	6	1	1	1	16	5	8	5	...	...	...	...	1	...	4	...	1	4	3	4	8	...	...
Longridge	2	...	1	1	3	4	1	1	6	13	1	3	4	1	...	1	...	3	1	3	13	...	1
Lytham Saint Anne's (B)	...	1	...	...	...	1	...	7	...	...	16	4	49	...	4	19	56	35	13	8	3	6	...	...	1	1	25	...	2	3	5	8	36	...	...
Middleton (B)	1	8	2	...	19	3	34	2	2	14	58	17	24	18	4	4	1	3	1	...	17	...	1	10	7	12	63	...	...
Milnrow	2	...	...	...	...	5	...	...	9	...	9	2	2	8	9	18	2	4	2	1	1	1	1	...	3	1	1	3	1	2	23	...	...
Morecambe & Heysham (B)	10	...	...	12	6	38	1	3	22	65	33	24	12	5	8	...	...	3	...	7	1	...	10	...	8	61	...	...
Mossley (B)	3	1	7	...	...	3	1	18	...	2	10	22	13	13	8	...	...	...	2	1	...	19	...	...	5	2	6	44	...	...
Nelson (B)...	2	8	2	...	19	3	68	3	3	31	82	24	42	23	2	2	4	4	3	...	22	...	4	11	8	11	104	3	...	
Newton-in-Makerfield	2	...	1	1	8	1	...	11	1	21	...	2	16	28	9	6	16	1	1	3	...	...	2	8	1	...	12	2	2	39	1	...	
Norden	1	...	1	4	...	5	...	1	3	5	7	7	2	2	1	...	1	...	...	12	...	...	4	2	...	3	...	...
Ormskirk	1	...	...	...	6	1	15	1	3	2	16	2	4	3	1	...	...	...	1	...	4	...	...	4	1	4	21	...	...
Orrell	1	...	...	...	2	4	...	3	6	7	1	6	9	1	...	...	...	...	1	1	...	1	6	2	1	18	3	...	
Oswaldtwistle	...	1	1	9	2	2	9	2	29	2	3	10	25	16	8	13	1	1	1	5	1	1	1	11	2	4	41	1	...
Padiham	...	1	...	...	1	...	3	7	...	...	4	3	15	1	...	3	47	8	10	9	...	...	1	3	1	...	5	1	...	5	2	4	42	1	...
Poulton-le-Fylde	1	1	5	2	4	1	1	1	1	5	1	14
Preesall	2	...	...	3	...	5	...	...	...	8	2	2	4	...	...	...	...	1	...	1	...	...	...	...	1	2	...	...
Prescot	1	...	2	...	...	5	2	14	1	1	7	25	7	7	11	2	2	1	...	2	3	...	1	...	1	2	6	8	...	...

URBAN DISTRICTS.		Total No. of Deaths from all causes.	Enteric fever.	Smallpox.	Measles.	Scarlet fever.	Whooping cough.	Diphtheria.	Influenza.	Encephalitis lethargica.	Meningococcal meningitis.	Tuberculosis of respiratory system.	Other tuber- culous diseases.	Cancer, malign- ant disease.	Rheumatic fever.	Diabetes.	Cerebral hæmorrhage, &c.	Heart disease.	Arterio-sclerosis.	Bronchitis.	Pneumonia (all forms).	Other respira- tory diseases.	Ulcer of stomach or duodenum.	Diarrhoea, &c. (under 2 years).	Appendicitis and typhlitis.	Cirrhosis of liver.	Acute and chronic nephritis.	Puerperal sepsis.	Other accidents and diseases of preg- nancy & parturition.	Congenital debility and malformation, premature birth.	Suicide.	Other deaths from violence.	Other defined diseases.	Causes ill-defined or unknown.	Special causes in- cluded in foregoing.		
	Prestwich ...	199	...	...	...	...	1	...	6	1	...	12	1	19	2	4	11	30	16	14	14	...	...	3	1	1	...	7	...	1	7	2	7	39	...	...
	Radcliffe ...	351	1	3	...	2	7	1	...	16	4	41	4	3	20	61	24	21	25	16	...	4	2	2	1	...	16	1	2	12	10	9	56	3	...
	Rainford ...	32	...	...	...	...	...	...	...	...	...	2	...	...	...	...	3	8	...	...	...	4	1	1	1	...	2	1	...	...	1	...	3	5	...	...
	Ramsbottom ...	163	...	...	...	...	3	...	2	...	...	8	1	25	...	2	10	36	17	17	17	4	...	2	...	2	1	3	...	...	3	...	4	23	...	...
	Rawtenstall (B) ...	387	3	5	2	...	12	3	41	3	3	25	74	31	24	24	26	5	2	1	2	3	23	1	...	14	9	11	61	3	1	Polomyelitis
	Rishton ...	77	...	...	...	...	1	...	4	...	1	7	1	10	...	1	5	11	7	6	3	...	...	...	...	...	...	2	...	...	4	1	1	11	1	...
	Royton ...	248	...	...	...	...	...	2	1	...	...	23	5	31	3	3	11	47	14	20	18	1	1	2	2	2	2	5	...	...	9	2	4	43	...	...
	Skelmersdale ...	75	...	...	...	...	...	...	5	...	...	3	...	4	...	...	12	15	...	7	4	1	...	1	1	1	...	5	...	...	2	1	5	8	1	...
	Standish-with-Langtree ...	74	1	...	...	...	...	...	3	...	...	4	3	5	2	2	5	6	11	2	7	1	...	1	1	1	...	5	1	...	3	...	2	9	...	...
	Stretford ...	606	...	...	4	1	2	2	18	4	...	41	6	90	1	8	33	85	31	30	45	5	3	3	4	4	2	24	1	...	31	3	17	110	1	...
	Swinton and Pendlebury	360	...	...	7	2	1	1	16	4	...	17	3	40	1	8	27	33	18	35	23	3	3	...	...	1	1	18	...	2	21	2	10	63	...	...
	Thornton Cleveleys ...	95	...	...	1	1	1	2	1	...	...	3	...	11	...	1	2	20	9	2	5	...	...	...	...	1	...	6	...	2	5	1	3	18	...	...
	Tottington ...	82	...	...	...	...	...	1	...	...	1	...	...	10	...	...	3	19	8	8	6	3	3	...	...	...	3	...	1	2	2	3	2	12	...	...
	Trawden ...	40	...	...	...	...	...	...	...	...	...	1	1	3	...	...	2	13	2	4	3	1	...	...	...	...	...	2	...	...	1	1	4	1	...	...
	Turton ...	166	...	...	...	1	1	...	5	...	...	7	...	26	1	3	8	29	16	5	10	1	1	1	1	...	...	6	...	1	5	5	7	27	...	...
	Tyldesley-with-Shakerley	196	...	...	1	...	...	2	11	...	...	6	4	22	1	4	7	27	15	13	24	...	...	1	1	2	1	11	1	...	8	1	6	27	...	...
	Ulverston ...	139	...	...	...	...	1	...	2	1	...	4	5	23	...	2	19	31	3	6	5	5	1	1	2	1	...	2	...	1	2	...	6	19	2	...
	Upholland ...	67	...	...	...	...	...	1	...	...	...	3	2	11	2	1	4	13	4	...	5	...	...	...	1	...	...	3	...	...	6	1	4	6	...	...
	Urmston ...	99	1	...	...	...	...	...	5	1	...	7	1	18	...	1	6	11	5	5	5	2	2	...	...	...	1	1	...	...	1	1	4	23	...	...
	Walton-le-Dale ...	147	...	...	...	...	...	...	1	1	...	10	1	20	1	4	10	15	6	11	13	13	2	3	1	1	1	7	...	1	13	...	3	23	...	...
	Wardle ...	51	...	...	...	...	...	1	2	1	...	1	1	3	...	...	6	5	3	6	3	...	...	...	...	...	1	3	...	1	...	2	2	10	...	...
	Waterloo-with-Seaforth ...	387	1	...	5	1	4	2	5	...	...	35	8	49	1	5	23	53	22	18	27	2	2	...	2	4	2	17	3	...	9	5	18	65	1	...
	Westhoughton ...	180	1	...	...	...	...	2	7	2	1	9	1	10	2	3	11	27	17	9	18	3	3	2	...	...	...	3	...	1	4	4	6	36	1	...
	Whitefield ...	93	...	...	1	...	...	1	...	...	...	6	1	12	1	...	4	19	5	4	7	1	1	...	...	...	...	6	...	...	4	2	3	16	...	...
	Whitworth ...	137	...	...	...	...	...	...	3	...	...	8	4	9	...	1	8	29	8	10	9	...	...	...	1	1	1	4	...	...	5	2	7	27	...	...

The relative importance from the point of view of mortality of various well-defined diseases or groups of diseases is shown in the following statement :—

	No. of deaths in 1928.	Percentage to total deaths in 1928.	Percentage to total deaths in 1927.
Heart Disease	3506	16·2 per cent.	15·0 per cent.
Cancer, malignant disease	2514	11·6 „	10·5 „
Pneumonia (all forms)	1486	6·8 „	7·0 „
Tuberculosis (all forms)	1353	6·2 „	6·1 „
Bronchitis	1346	6·2 „	7·5 „
Cerebral hæmorrhage, &c.	1319	6·1 „	6·1 „
Arterio-sclerosis	1267	5·8 „	5·1 „
Violence (including suicide)	990	4·5 „	4·3 „
Congenital debility and malformation, premature birth	871	4·0 „	3·9 „
Acute and chronic nephritis	750	3·4 „	2·9 „
Influenza	564	2·6 „	5·5 „
*Principal infectious diseases	505	2·3 „	2·7 „

* Includes smallpox, measles, scarlet fever, whooping cough, diphtheria, enteric fever, and diarrhœa (under 2 years).

Comparison with the totals for the year 1927 shows that the deaths from heart disease in 1928 were more numerous by 65, and the percentage of these deaths to the total deaths rose from 15·0 to 16·2, or roughly one-sixth of the fatalities from all causes. There was an increase of 103 in the cancer deaths, 98 more from arterio-sclerosis, and 75 more from nephritis. The most marked decreases were influenza, 700 ; bronchitis, 378 ; pneumonia, 140 ; and measles, 85.

Further details respecting the principal causes of death are given in the following paragraphs :—

HEART DISEASE.—Deaths from heart disease in 1928 numbered 3,506, equal to a rate of 1·93 per 1,000 of the estimated population—the highest rate yet recorded, and the percentage to total deaths is also in excess of any preceding year.

The statement below gives the ten years' figures :—

Year.	No. of Deaths.	Rate per 1000 of Population.	Percentage to total deaths from all causes.
1919	2,323	1·39	9·9
1920	2,141	1·23	9·7
1921	2,308	1·31	10·6
1922	2,837	1·60	12·1
1923	2,707	1·52	12·4
1924	2,776	1·55	12·4
1925	3,113	1·74	13·7
1926	2,995	1·67	13·9
1927	3,441	1·91	15·0
1928	3,506	1·93	16·2

CANCER (MALIGNANT DISEASE).—This disease again holds second position among the principal fatal diseases. The deaths numbered 2,514 or 103 more than in the year 1927. This total, like heart disease, is higher than in any preceding year, and the death-rate per 1,000 of the population—1·38—also exceeds any previous annual average.

As much discussion is now centred round this disease the County cancer records extending over a period of years are reproduced.

Cancer records for the Administrative County are available since the year 1900, and below are given the number of deaths each year ascribed to this disease, and the County death-rates per 1,000 of the estimated population. For purposes of comparison the rates for England and Wales are also given :—

Year.	Number of Deaths.	Death-rate.		Year.	Number of Deaths.	Death-rate.	
		Administrative County.	England and Wales.			Administrative County.	England and Wales.
1900	1072	0·54	0·90	1915	1577	0·94	1·21
1901	1149	0·62		1916	1728	1·06	1·16
1902	1113	0·60		1917	1713	1·09	1·19
1903	1223	0·65		1918	1727	1·12	1·19
1904	1229	0·65		1919	1793	1·07	1·18
1905	1164	0·65		1920	1880	1·08	1·16
1906	1214	0·69		1921	1981	1·12	1·21
1907	1254	0·70		1922	2063	1·16	1·22
1908	1283	0·71		1923	2076	1·17	1·26
1909	1374	0·75		1924	2182	1·22	1·29
1910	1333	0·74	0·99	1925	2273	1·27	1·33
1911	1493	0·86		1926	2312	1·29	1·36
1912	1466	0·83		1927	2411	1·33	1·37
1913	1618	0·93		1928	2514	1·38	1·42
1914	1668	0·95	1·06				

During the twenty-eight years the cancer deaths in the County area have increased by about 134 per cent.

The incidence of cancer amongst males and females, as indicated by the mortality returns, is shown by the following figures :—

Year.	Percentage of Cancer deaths.		Year.	Percentage of Cancer deaths.	
	Male.	Female.		Male.	Female.
1919	43·1	56·9	1924	46·8	53·2
1920	44·0	56·0	1925	45·8	54·2
1921	43·0	57·0	1926	47·1	52·9
1922	44·3	55·7	1927	46·3	53·6
1923	43·4	56·6	1928	45·6	54·3

The following table groups the cancer deaths in the County in certain age-periods, for males and females :—

Year.	Total Cancer Deaths.	Sex.	Years.			
			Under 25.	25—45.	45—65.	65 and upwards.
1919	1,793	M.	6	62	416	290
		F.	6	123	539	351
1920	1,880	M.	8	69	463	287
		F.	5	113	543	392
1921	1,981	M.	16	65	453	317
		F.	4	132	566	428
1922	2,063	M.	15	48	519	331
		F.	10	120	559	461
1923	2,076	M.	15	47	458	382
		F.	10	103	572	489
1924	2,182	M.	15	53	543	411
		F.	6	125	591	438
1925	2,273	M.	11	75	528	427
		F.	11	142	585	494
1926	2,312	M.	10	58	561	460
		F.	11	120	609	483
1927	2,411	M.	12	66	569	471
		F.	9	113	634	537
1928	2,514	M.	11	53	585	499
		F.	9	143	615	599

This table gives the percentage to total cancer deaths for both sexes at stated age periods :—

Percentage to total Cancer deaths at specified age periods (crude rates).						
Year.	Sex.	Under 25 years.	25—45 years.	45—65 years.	65 years and upwards.	At all ages.
		%	%	%	%	%
1919 ...	M.	0·3	3·5	23·2	16·1	43·1
	F.	0·3	6·9	30·1	19·6	56·9
1920 ...	M.	0·4	3·7	24·6	15·3	44·0
	F.	0·3	6·0	28·9	20·8	56·0
1921 ...	M.	0·8	3·3	22·9	16·0	43·0
	F.	0·2	6·7	28·5	21·6	57·0
1922 ...	M.	0·7	2·3	25·2	16·1	44·3
	F.	0·5	5·7	27·1	22·4	55·7
1923 ...	M.	0·7	2·3	22·0	18·4	43·4
	F.	0·5	4·9	27·6	23·6	56·6
1924 ...	M.	0·7	2·4	24·9	18·8	46·8
	F.	0·3	5·7	27·1	20·1	53·2
1925 ...	M.	0·5	3·3	23·2	18·8	45·8
	F.	0·5	6·3	25·7	21·7	54·2
1926 ...	M.	0·4	2·5	24·3	19·9	47·1
	F.	0·5	5·2	26·3	20·9	52·9
1927 ...	M.	0·4	2·7	23·6	19·5	46·3
	F.	0·3	4·6	26·2	22·2	53·6
1928 ...	M.	0·4	2·1	23·2	19·8	45·6
	F.	0·3	5·6	24·4	23·8	54·3

County cancer mortality shown per 100,000 of each sex living at various age-periods for the years 1921–1928* :—

Year.	Sex.	Under 25 years.	25—45 years.	45—65 years.	65 years and upwards.
Per 100,000 living at these age periods—					
1921 ...	M.	4·2	26·3	270·0	805·7
	F.	1·0	45·5	306·5	806·1
1922 ...	M.	3·9	19·4	309·3	841·2
	F.	2·5	41·3	302·7	868·3
1923 ...	M.	3·9	19·0	272·9	970·9
	F.	2·5	35·5	309·7	921·0
1924 ...	M.	3·9	21·4	323·6	1044·6
	F.	1·5	43·1	320·7	824·9
1925 ...	M.	2·9	30·4	314·7	1085·2
	F.	2·8	48·9	316·8	930·4
1926 ...	M.	2·6	23·5	334·3	1169·1
	F.	2·8	41·3	329·8	909·7
1927 ...	M.	3·1	26·7	339·1	1197·4
	F.	2·3	38·9	343·5	1011·4
1928 ...	M.	2·9	21·4	348·6	1268·6
	F.	2·3	49·3	333·0	1128·2

* The averages shown in this table are based on the age and sex distribution of the population as at the Census 1921, the figures for the later years not being available.

The England and Wales mortality averages, showing the rise in the cancer death-rate of the whole country during the last 58 years are set out below :—

Years.				Cancer death-rate per million persons living.
1871–1880	...	...	...	470
1881–1890	...	...	...	591
1891–1900	...	...	...	757
1901–1910	...	...	...	904
1911–1920	...	...	...	1117
1921–1925	...	...	...	1269
1926	...	...	...	1362
1927	...	...	...	1376
1928	...	...	...	1425

Statistics are not available as regards the County cancer deaths showing the anatomical distribution, but Table 5, given below, which has been prepared from the figures published annually by the Registrar-General, shows the preponderance with which certain sites are affected in both sexes.

TABLE 5.—DEATHS FROM CANCER AND THE DISTRIBUTION OF THE RECORDED FATAL CASES IN ENGLAND AND WALES, 1919–1928.

Site affected.						1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Buccal cavity...	...	...	...	M.		2387	2449	2482	2415	2548	2507	2619	2570	2713	2790
					F.	378	369	358	361	414	423	428	433	430	422
Pharynx, œsophagus, stomach, liver, and annexa	...	...	...	M.		7259	7477	7926	8179	8335	8552	9003	9065	9143	9317
					F.	6289	6576	6818	7007	7070	7153	7428	7740	7499	7856
Peritoneum, intestines, and rectum	...	...	...	M.		4178	4439	4683	4790	5010	5437	5544	5888	5968	6156
					F.	4617	4780	5059	4964	5338	5528	5601	6032	6025	6324
Female genital organs	...	...	...	F.		5000	5005	5436	5354	5572	5626	5705	5791	5872	6008
Breast	...	...	...	M.		28	35	33	42	34	38	39	43	41	51
					F.	4309	4488	4684	4826	4996	5153	5372	5296	5678	5878
Skin	...	...	...	M.		714	702	719	727	756	824	787	817	821	883
					F.	416	385	401	439	427	460	432	427	475	502
Other or unspecified organs	...	...	...	M.		4157	4557	4806	5113	5382	5741	5980	6054	6262	6816
					F.	2412	2425	2617	2686	2786	2947	2971	3064	3051	3250
Total Cancer deaths	...	...	...	M.		18723	19659	20649	21266	22065	23099	24002	24437	25048	26013
					F.	23421	24028	25373	25637	26603	27290	27937	28783	29030	30240

Extracted from the Registrar-General's Statistical Review.

District death-rates from Cancer.—The following districts had the highest cancer death-rates per 1,000 of the population in 1928 :—Carnforth, 2·56 ; Ulverston, 2·52 ; Preesall, 2·44 ; Urmston, 2·24 ; Grange-over-Sands, 2·14 ; Lathom and Burscough, 2·13 ; Turton, 2·09 ; Heywood (B), 2·07 ; and Ormskirk, 2·02.

The Ministry of Health in their Circular relating to the preparation of local reports ask the Medical Officers of Health for any observations as to the prevalence of cancer, and to give details of any local action taken to improve the facilities for the diagnosis and treatment of cancer. At Ashton-under-Lyne (B) circulars were distributed and posters exhibited drawing attention to the desirability of securing early medical treatment. Chorley Town Council contributed £100 towards the cancer research fund. At Prestwich, operated cases are kept under observation by request of the Manchester, etc., Cancer Committee. Several districts report that increasing advantage is taken of facilities available at the radiological departments and hospitals in neighbouring large towns.

BRONCHITIS.—The fatalities from bronchitis in 1928 numbered 1,346, or 378 fewer than in the year 1927. The percentage to total deaths from all causes was 6·2 against 7·5 in the previous twelve months. The death-rates per 1,000 of the estimated population were :—County, 0·74 ; urban districts, 0·78 ; and rural districts, 0·50.

PNEUMONIA (ALL FORMS).—The number of deaths allocated to pneumonia was 1,486, as compared with 1,626 in the year 1927, and the percentage to total deaths was 6·8 compared with 7·0. The County death-rate corresponded to 0·82 per 1,000, in the urban districts 0·84, and in the rural districts 0·65.

INFLUENZA.—The mortality from influenza is extremely variable. In the year 1926 the deaths in the County area numbered 541, in 1927 there were 1,264, whilst in the year under report (1928) the fatalities were 564, a reduction on the previous year of 700 deaths. The death-rate per 1,000 of the population was 0·31. Schools were closed on account of influenza in two districts.

TUBERCULOSIS (ALL FORMS).—The deaths assigned to tuberculous affections during the year 1928 numbered 1,353, viz. : to tuberculosis of the respiratory system (pulmonary), 1,066 ; to other forms of tuberculosis, 287. In the year 1927, the deaths were pulmonary, 1,105 ; other forms, 296. The death-rates in 1928 were pulmonary, 0·58 per 1,000 of the population ; other forms, 0·15. These deaths, and also the cases notified, are fully analysed on pages 125 to 130.

CEREBRAL HÆMORRHAGE in 1928 contributed 1,319 deaths, 85 less than in 1927.

CONGENITAL DEBILITY AND MALFORMATION, PREMATURE BIRTH.—Fatalities registered in 1928 in this group totalled 871—44 fewer than in the previous year. They represented 4·0 per cent. of the total deaths, and were equivalent to a rate of 0·48 per 1,000 of the population.

THE PRINCIPAL INFECTIOUS DISEASES.—Reference to the cases notified and the deaths from smallpox, measles, scarlet fever, whooping cough, diphtheria, enteric fever and diarrhœa, and to the other notifiable diseases are made in the section of the report headed “ Prevalence and Control over Infectious Diseases,” pages 105 to 137. The total number of deaths ascribed to the seven diseases mentioned above were 505, or 2·3 per cent. of the total deaths from all causes. In 1927 the deaths numbered 619, or 2·7 per cent.

TRANSFERABLE DEATHS.—During the year under report the following “ transfers ” were made :—4,599 persons who, having a fixed or usual residence in the Administrative County, died in a district other than that in which they resided, and these (known as inward transfers) have been allocated to their proper districts ; 4,591 deaths occurring in County districts of persons not belonging thereto were transferred to the areas to which they belonged. In the year 1927, the transfers were :—Inward 4,522, Outward 4,646.

Infant Mortality.—The number of deaths of infants under the age of one year, registered in the Administrative County in the year 1928, was 1,827, or 8·46 per cent. of the total deaths at all ages. In 1927 the infant deaths totalled 1923, or 8·39 per cent. of the total deaths.

An analysis of the infant mortality of 1928, and the preceding four years is given in the following table :—

Causes of Infant Deaths.	No. of Deaths of Infants under 1 year.				
	1924.	1925.	1926.	1927.	1928.
Total—All Causes	2420	2334	2254	1923	1827
Measles	58	44	38	35	22
Scarlet Fever	2	2	3	—	—
Whooping Cough	88	102	117	46	47
Diphtheria	8	3	2	3	6
Influenza	27	18	15	30	8
Encephalitis Lethargica	2	1	2	—	1
Meningococcal Meningitis	4	5	4	3	3
Tuberculosis of Respiratory System	5	4	2	1	2
Other Tuberculous Diseases	31	19	24	21	26
Bronchitis	192	186	183	118	130
Pneumonia (all forms)	368	343	341	272	248
Other Respiratory Diseases	12	13	16	10	7
Diarrhœa, &c.	189	205	178	150	133
Congenital Debility and Malformation, Premature Birth	1022	985	935	902	846
Other Causes	412	404	394	332	348

Congenital debility and malformation, premature birth, accounted for 846 deaths, or 46 per cent. of the total infant deaths, the same percentage as in 1927.

The rate of infant mortality in 1928, calculated per 1,000 births, was the lowest on record, viz., County, 69; urban districts, 71; rural districts, 57. The rate for the whole of England and Wales was 65.

The following table gives the infant death-rates, County, urban, and rural, for 1928 and the preceding ten years, and also the rate for England and Wales :—

	Rate of Deaths of Children under 1 Year to 1,000 Births.										
	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Urban Districts ...	101	94	95	90	87	82	84	83	82	74	71
Rural Districts ...	90	88	67	76	75	67	68	71	71	68	57
Administrative County	100	93	91	88	85	80	81	82	80	73	69
England and Wales	97	89	80	83	77	69	75	75	70	69	65

The following table shows that the County infant death-rate for 1928 was 10 per 1,000 births below the average of the preceding five years, and also emphasises the marked fall in this rate compared with thirty years ago :—

Years.	INFANT MORTALITY.		
	Rate of Deaths under One Year.		Percentage of Infant Deaths to Total Deaths at all ages.
	Per 1,000 Births.	Per 1,000 of the Estimated Population.	
1893-1897	161	4.72	26.34
1898-1902	161	4.35	26.24
1903-1907	138	3.52	23.77
1908-1912	122	2.83	20.31
1913-1917	110	2.29	15.98
1918-1922	91	1.78	13.04
1923-1927	79	1.27	10.26
1928	69	1.00	8.46

The usual contrasts are shown in the infant mortality rates of the comparatively small areas, and there are again striking fluctuations. For example, Little Crosby in 1928 had a rate of 181 per 1,000 births compared with nil in 1927; Norden had a rate of 140 as compared with 58 last year; Sefton (R), 137 against 65; Billinge and Winstanley, 129 against 71; and Rishton, 125 against 54.

In 1 district in 1928 the rate was 181 per 1,000 births.
 In 12 districts the rate was between 100 and 150 per 1,000 births.
 In 76 districts the rate was between 50 and 100 per 1,000 births.
 In 30 districts the rate was under 50 per 1,000 births.

The highest infant death-rates in 1928 were as follow :—Little Crosby, 181 per 1,000 births (2 deaths); Norden, 140 (8 deaths); Sefton (R), 137 (14 deaths); Billinge and Winstanley, 129 (8 deaths); Rishton, 125 (10 deaths); Adlington, 115 (6 deaths); Padiham, 113 (19 deaths); Ashton-in-Makerfield, 107 (38 deaths); Aspull, 107 (18 deaths); Bacup (B), 104 (33 deaths); Mossley (B), 103 (16 deaths); Croston, 100 (3 deaths); and Royton, 100 (22 deaths).

Extending over the last five years, 1924–1928, the following districts had the greatest infant mortality.—Trawden, 122; Ince-in-Makerfield, 121; Aspull, 115; Standish-with-Langtree, 112; Padiham, 105; Royton, 103; Blackrod 102; Croston and Sefton (R), each 101; and Kirkham, 100.

Low infant death-rates were recorded in 1928 in Preesall, 27; Abram, 26; Ormskirk and Lunesdale (R), each 24. Kearsley, 21; Urmston, 20; and Lathom and Burscough, 18.

Table 1, on page 12, gives the infant mortality rate for the County and for the combined urban and rural districts since the year 1889, and on pages 161 to 185, each district rate is shown contrasted with last year's rate and the previous five years' average.

GENERAL PROVISION OF HEALTH SERVICES IN THE COUNTY.

Hospital Accommodation.—SMALLPOX.—OTHER INFECTIOUS DISEASES.—Table 18, pages 106 to 119, shows the nature of the hospital accommodation, both for smallpox and other infectious diseases, provided in, or available for, each County sanitary district, and the table also gives for each district the number of cases removed to hospital in the year 1928, and the number of deaths in hospital.

Summarized, the position of the Administrative County at the end of 1928 as regards hospital accommodation for smallpox and other infectious diseases is shown in the following statement :—

No. of Districts with their own Hospital	For smallpox.		For infectious diseases other than smallpox.	
	...	16	...	18
„ using the hospitals of Joint Hospital Boards or Committees	...	50	...	44
„ using other hospitals within the Administrative County (i.e., belonging to other urban or rural authorities)	...	9	...	11
„ using hospitals not in the Administrative County (chiefly those belonging to County Boroughs)	39	...	...	40
„ without hospital accommodation	5	...	...	6

The districts stated to have no hospital accommodation available are as follow :—

For Smallpox :	For other Infectious Diseases :
Ashton-in-Makerfield	Billinge-and-Winstanley Norden
Blackrod	Great Harwood Clitheroe (R)
Carnforth	Mossley (B) Limehurst (R)
* Hindley	
Upholland	

* Cases of smallpox were isolated in the local hospital for ordinary infectious diseases.

From some of these districts one or two cases were admitted by arrangement to hospitals belonging to other authorities.

The following changes are reported during 1928 in the local arrangements for hospital purposes :—

For smallpox : Rainford, which had a hospital of 4 beds now has an agreement with Liverpool C.B. Norden, which had 4 beds in a converted farmhouse, has made an agreement with the Bury Joint Hospital Board. Skelmersdale and Standish-with-Langtree, with no accommodation in 1927, now report agreements with Liverpool C.B. and Blackburn C.B. respectively.

For other diseases : Rainford, which used for ordinary infectious diseases their smallpox hospital of 4 beds when not required for smallpox, have now an agreement with St. Helens C.B. Skelmersdale, which last year reported a hospital of 10 beds plus an arrangement with West Lancashire Rural Council, now apparently relies entirely upon the latter accommodation.

At Morecambe and Heysham (B) it is reported land has been purchased for a joint hospital. At Lancaster (B) a site has been purchased for a new infectious diseases hospital, and the scheme prepared contemplates extensions for the isolation of smallpox cases. Limehurst (R) reports a conference with neighbouring authorities to consider building a hospital for diseases other than smallpox. Districts in the Barton-upon-Irwell neighbourhood have "discussed" the provision of hospital accommodation, but no definite action has been taken.

In a considerable number of district reports reference is made to action taken to shorten the period of stay in hospital of uncomplicated cases of scarlet fever; in many districts where the home conditions are considered satisfactory, removal does not take place. In one or two districts, it is stated, the Councils, on the advice of the Medical Officer, are prepared to pay for the services of a home nurse.

Contributions towards maintenance in hospitals.—In most County districts no attempt is made to recover the cost of maintenance in hospital, but in about eleven districts, it is stated, parents or others responsible are asked to contribute according to their means.

REMOVAL OF CASES.—The following table gives the number and percentage of removals to hospital in 1928 of cases of smallpox, scarlet fever, diphtheria, and enteric fever, and contrasts the mortality of cases isolated in hospital with that of cases treated at home :—

		Total cases notified.	Hospital Treatment.			Home Treatment.		Case mortality per cent.	
			Cases removed to hospital.	Percentage of removals.	Deaths in hospital.	Cases treated at home.	Deaths at home.	In hospital.	At home.
Smallpox	... ..	563	532	94·4	2	31	3	0·37	9·67
Scarlet Fever	...	4797	2944	61·3	16	1853	11	0·54	0·59
Diphtheria	... ..	1566	1098	70·1	53	468	56	4·82	11·96
Enteric Fever	...	112	46	41·0	12	66	12	26·08	18·18

In the year 1927, the percentages of removal to hospital were : smallpox, 98·9 ; scarlet fever, 50·0 ; diphtheria, 68·6 ; and enteric fever, 66·1.

TUBERCULOSIS.—The Lancashire County Council, through the Tuberculosis Committee, has undertaken to provide a complete scheme for the treatment of tuberculosis for the inhabitants of the Administrative County area.

The following statement is kindly supplied by Dr. G. Lissant Cox, the Central Tuberculosis Officer :—

Number of beds in sanatoria and hospitals occupied by County patients suffering from pulmonary and non-pulmonary tuberculosis, July, 1929 :—

	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total.
	Adults.	Children.	Adults.	Children.	
Sanatoria for early and intermediate cases ...	298	2	1	...	301
Training Colonies	2	...	...	...	2
Pulmonary Hospitals for advanced cases requiring isolation or nursing	287	1	1	...	289
Children's Special Sanatoria and Hospitals ...	...	48	...	130	178
General Hospitals and Infirmaries for surgical cases	2	...	17	7	26
Special Hospitals for surgical cases ... ..	...	...	72	13	85
Special Hospital for tuberculous skin cases ...	...	...	1	...	1
Sanatoria and Hospitals taking observation cases	5	3	1	4	13
	594	54	93	154	895
	648		247		

MATERNITY BEDS.—In the section of this report on Maternity and Child Welfare, reference is made on pages 150 and 153 to the facilities provided for maternity cases in the County Council scheme, and by the local authorities who themselves undertake maternity and child welfare work.

CHILDREN.—The district reports state that hospital provision for children is available at Acerrington (B), Ashton-under-Lyne (B), Chorley (B), Colne (B), Eccles (B), Fleetwood, Lancaster (B), Leigh (B), Ramsbottom, Swinton and Pendlebury, Urmston, and Waterloo-with-Seaforth. Other districts report that children are sent to general hospitals in other districts, or to Poor Law Institutions. The County Council arrangements for children are referred to on pages 39 and 153.

Institutional Provision for Unmarried Mothers, Illegitimate Infants, and Homeless Children.—Institutional accommodation for these classes has been provided at Ashton-under-Lyne (B), Chorley (B) (West View), Eccles (B), Haslingden (B), Heywood (B) (Simpson Hill), Kirkham (Cottage Homes), Lancaster (B) (Children's Home), Waterloo-with-Seaforth (St. Mary's Home), Warrington (R) (Padgate Cottage Homes), Tottington (Holly Mount), and Turton (Children's Home).

Maternity and Child Welfare Centres.—A list of the maternity and child welfare centres provided (a) by the County Council, and (b) by Local Sanitary Authorities, with the day and time they are open, is given on pages 147 and 151. Details as to the child welfare work carried out by the County Council Health Visitors are given on page 146.

Day Nurseries.—Day nurseries have been provided at Leyland (by the County Council) and at Morecambe (B) (managed voluntarily).

School Clinics.—(A) BY COUNTY AUTHORITY ; (B) BY LOCAL AUTHORITIES.—(A) Medical treatment under the County scheme continues to expand. The development of treatment has progressed still further, and during the year additional Clinics have been opened at Audenshaw and Padiham for the treatment of minor ailments, defective eyesight, and teeth defects. Arrangements have also been made with the Barton-upon-Irwell Park Hospital, the Fleetwood Hospital, the Ramsbottom Cottage Hospital, and the Widnes Accident Hospital, for the operative treatment of tonsils and adenoids.

In addition, certain children in subnormal health are receiving treatment by Artificial Light through clinics established at Atherton, Chorley, Horwich and Westhoughton.

The policy of asking patients to contribute according to their means is still followed. Cases are first of all referred to their own doctor, who treats the case if satisfactory arrangements can be made. If no treatment has been obtained within a month, the case is then referred to the Clinic, when such is available, or to Hospital, as the case may be. A nominal sum is asked for each attendance at the Clinic, but in necessitous cases no charge is made. The consent, in writing, of a parent or guardian is obtained before treatment of any kind is given.

The following is a list of the School Clinics now open for treatment, the kind of work which is undertaken in each being shown :—

District.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Ashton-in-Makerfield	... Mon.	... 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
	Tues.	... 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Minor ailments ... Orthopædic	... Surgeon attends second Tuesday in each month only.
	Wed.	... 10 a.m. to 12 noon 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Ophthalmic ... Dental	
	Thurs.	... 2 p.m. to 4 p.m.	... Minor Ailments	... Nurse only. Re-dressings.
	Fri.	... 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
Ashton-under-Lyne	... Wed.	... 10 a.m. to 12 noon	... Orthopædic	... Surgeon attends third Wednesday in each month only.
	Fri.	... 10 a.m. to 12 noon	... Orthopædic	... Nurse only.
Atherton	... Mon.	... 2 p.m. to 4 p.m.	... Artificial light	
	Thurs.	... 9-45 a.m. to 12 noon		
Audenshaw	... Mon.	... 9-30 a.m. to 12 noon 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Minor ailments ... Dental	
	Tues.	... 10 a.m. to 12 noon 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Ophthalmic ... Dental	... Open alternate weeks only.
	Wed.	... 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
	Thurs.	... 9-30 a.m. to 12 noon 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Minor ailments ... Dental	... Nurse only. Re-dressings.
	Fri.	... 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
Burnley	... Thurs.	... 2 p.m. to 4 p.m.	... Orthopædic	... Surgeon attends second Thursday in each month only.
Chadderton	... Wed.	... 2 p.m. to 4 p.m.	... Orthopædic	... Surgeon attends fourth Wednesday in each month only.
	Fri.	... 2 p.m. to 4 p.m.	... Orthopædic	... Nurse only.
Chorley	... Mon. Wed. Fri.	} 2 p.m. to 3 p.m. Boys 3 p.m. to 4 p.m. Girls	... Artificial light.	
Dalton-in-Furness	... Mon.		... Minor ailments ... Dental	... Nurse only. Re-dressings.
	Tues.		... Dental	
	Thurs.		... Dental ... Minor ailments	
	Fri.	... 10 a.m. to 12 noon	... Ophthalmic	

District.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Fleetwood	... Mon.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.		
		10-30 a.m. to 12-30 p.m.	... Orthopædic	... Nurse only.
	Tues.	9-30 a.m. to 12 noon	... Minor ailments	
	Wed.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.		
	Thurs.	9-30 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
Great Crosby	... Mon.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.		
		10-30 a.m. to 12-30 p.m.	... Orthopædic	... Nurse only. Re-dressings.
	Tues.	9-30 a.m. to 12 noon	... Minor ailments	
	Wed.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.		
	Fri.	10-30 a.m. to 12-30 p.m.	... Orthopædic	... Surgeon attends third Friday in each month only.
Haydock	... Mon.	9-30 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		2 p.m. to 4 p.m.	... Dental	
		10-30 a.m. to 12-30 p.m.	... Orthopædic	... Surgeon attends second Tuesday in each month only.
	Tues.	9-30 a.m. to 12 noon	... Minor ailments	
	Wed.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.	... Dental	
	Fri.	10-30 a.m. to 12-30 p.m.	... Orthopædic	... Open alternate weeks only.
Horwich	... Mon.	9-30 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		2 p.m. to 4 p.m.	... Dental	
		10-30 a.m. to 12-30 p.m.	... Orthopædic	... Surgeon attends first Wednesday in each month only. Nurse attends first and third Wednesday.
	Tues.	9-30 a.m. to 12 noon	... Minor ailments	
	Wed.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.	... Dental	
	Fri.	10-30 a.m. to 12-30 p.m.	... Orthopædic	... Open alternate weeks only.
Irlam	... Mon.	9-30 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		2 p.m. to 4 p.m.	... Dental	
		10-30 a.m. to 12-30 p.m.	... Orthopædic	... Surgeon attends third Thursday in each month only.
	Tues.	9-30 a.m. to 12 noon	... Minor ailments	
	Wed.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.	... Dental	
	Fri.	10-30 a.m. to 12-30 p.m.	... Orthopædic	... Open alternate weeks only.
Kearsley	... Mon.	9-30 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		2 p.m. to 4 p.m.	... Dental	
		10-30 a.m. to 12-30 p.m.	... Orthopædic	... Surgeon attends first Wednesday in each month only.
	Tues.	9-30 a.m. to 12 noon	... Minor ailments	
	Wed.	9-30 a.m. to 12 noon	... Dental	
		2 p.m. to 4 p.m.	... Dental	
	Fri.	10-30 a.m. to 12-30 p.m.	... Orthopædic	... Open alternate weeks only.

District.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Lancaster	... Wed.	... 2 p.m. to 4 p.m.	... Orthopædic	... First Wednesday in each month only.
	Thurs.	... 10 a.m. to 12 noon	... Ophthalmic	... Open by arrangement when sufficient number of cases for treatment, usually monthly. Day changed to Monday during summer months.
Leyland	... Mon.	... 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Minor ailments ... Orthopædic	... Nurse only. Re-dressings. ... Surgeon attends first Monday in each month only.
	Tues.	... 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
	Wed.	... 9-30 a.m. to 12 noon	... Ophthalmic	... Open alternate weeks only.
	Thurs.	... 9-30 a.m. to 12 noon	... Minor ailments	
	Fri.	... 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
Litherland	... Mon.	... 9-30 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
	Tues.	... 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Minor ailments ... Dental	
	Wed.	... 9 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
	Thurs.	... 9-15 a.m. to 12-15 p.m. 10 a.m. to 12 noon	... Ophthalmic ... Orthopædic	... Surgeon attends fourth Thursday in each month only. Nurse attends each Thursday, except fourth Thursday.
		2 p.m. to 4 p.m.	... Dental	
	Fri.	... 9 a.m. to 10 a.m. 10 a.m. to 12 noon	... Inspection ... Minor ailments	
Littleborough	... Mon.	... 9 a.m. to 12 noon 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Minor ailments ... Dental	... Nurse only. Re-dressings
	Wed.	... 10 a.m. to 12 noon	... Ophthalmic	... Open alternate weeks only.
	Thurs.	... 9 a.m. to 12 noon	... Minor ailments	
	Fri.	... 10 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
Nelson	... Fri.	... 2 p.m. to 4 p.m.	... Orthopædic	... Surgeon attends third Friday in each month only.
Ormskirk (A)	... Mon.	... 10 a.m. to 12 noon	... Minor ailments	... Open alternate weeks only. (Re-dressings by Hospital Staff each day).
	Fri.	... 9 a.m. to 12 noon 2 p.m. to 4 p.m.	... Dental	
Ormskirk (B)	... Fri.	... 10 a.m. to 12 noon	... Orthopædic	... Surgeon attends first Friday in each month only. Nurse attends each Friday, except third Friday.

District.	Days and Times of Opening.			Nature of work undertaken.	Remarks.
Oswaldtwistle	... Mon.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Dental	
	Wed.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	... Open alternate weeks only.
	Thurs.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	
	Fri.	... 10 a.m. to 12 noon	... 9 a.m. to 12 noon	... Ophthalmic	
Padiham	... Mon.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Dental	
		... 9-30 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	
	Tues.	... 9-30 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	... Open alternate weeks only.
	Wed.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
	Thurs.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Ophthalmic	
	Fri.	... 9-30 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
Prescot	... Mon.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
		... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
	Tues.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
	Wed.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	... Open alternate weeks only.
	Thurs.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Ophthalmic	
	Fri.	... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Minor ailments	
Preston	... Wed.	... 10 a.m. to 12 noon	... 10 a.m. to 12 noon	... Orthopædic	... Surgeon attends fourth Wednesday in each month.
		... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Orthopædic	
Ramsbottom	... Mon.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
	Tues.	... 9-30 a.m. to 12 noon	... 9 a.m. to 12 noon	... Dental	
	Wed.	... 9 a.m. to 12 noon	... 9 a.m. to 12 noon	... Minor ailments	... Open alternate weeks only.
	Fri.	... 10 a.m. to 12 noon	... 9-30 a.m. to 12 noon	... Ophthalmic	
Rishton	... Mon.	... 9-30 a.m. to 12 noon	... 9-30 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
		... 9-30 a.m. to 12 noon	... 9-30 a.m. to 12 noon	... Ophthalmic	
		... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Dental	
	Tues.	... 10 a.m. to 12 noon	... 9-30 a.m. to 12 noon	... Orthopædic	... Surgeon attends fourth Wednesday in each month only.
	Wed.	... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Orthopædic	
	Thurs.	... 9-30 a.m. to 12 noon	... 9-30 a.m. to 12 noon	... Minor ailments	
Rochdale	... Mon.	... 2 p.m. to 4 p.m.	... 2 p.m. to 4 p.m.	... Orthopædic	... Surgeon attends each week.
	Tues.	... 9-30 a.m. to 12 noon	... 9-30 a.m. to 12 noon	... Ophthalmic	... Open alternate weeks only.

District.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
oyton	... Tues.	... 9 a.m. to 12 noon	... Minor ailments	
		... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Wed.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
		... 10 a.m. to 12 noon	... Ophthalmic	... Open alternate weeks only.
	Thurs.	... 10 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Fri.	... 9 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
Skelmersdale	... Wed.	... 1.45 p.m. to 4 p.m.	... Inspection	
Tyldesley	... Mon.	... 10 a.m. to 12 noon	... Ophthalmic	... Open alternate weeks only.
		... 2 p.m. to 4 p.m.	... Orthopædic	... Nurse only.
	Tues.	... 9 a.m. to 12 noon	... Minor ailments	
		... 10 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Wed.	... 10 a.m. to 12 noon	... Orthopædic	... Surgeon attends second Wednesday in each month only.
	Thurs.	... 10 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
		... 2 p.m. to 4 p.m.	... Minor ailments	... Nurse only. Re-dressings.
Ulverston	... Mon.	... 9 a.m. to 12 noon	... Minor ailments	... Nurse only. Re-dressings.
	Tues.	... 2 p.m. to 4 p.m.	... Orthopædic	... First Tuesday in each month only.
	Wed.	... 9 a.m. to 12 noon	... Minor ailments	
		... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Fri.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
Westhoughton	... Mon.	... 9 a.m. to 12 noon	... Dental	
		... 9 a.m. to 12 noon	... Minor ailments	
	Wed.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
		... 10 a.m. to 12 noon	... Ophthalmic	... Open every fourth Wednesday only.
		... 2 p.m. to 4 p.m.	... Minor ailments	... Nurse only. Re-dressings.
	Thurs.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Fri.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
Whitefield	... Mon.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Tues.	... 9 a.m. to 12 noon	... Minor ailments	
	Wed.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
	Thurs.	... 9 a.m. to 12 noon	... Dental	
		... 2 p.m. to 4 p.m.		
		... 10 a.m. to 12 noon	... Orthopædic	... Surgeon attends third Thursday in each month only.
	Fri.	... 9 a.m. to 12 noon	... Ophthalmic	... Open alternate weeks only.
		... 2 p.m. to 4 p.m.	... Minor ailments	... Nurse only. Re-dressings.
Wigan	... Mon.	... 10 a.m. to 12 noon	... Orthopædic	... Surgeon attends first Monday in each month only.

Arrangements have been made with the following Hospitals for the treatment of specified classes of defect, those marked with an asterisk being new arrangements made during the year :—

Aneoats Hospital, Manchester	...	...	Tonsils and adenoids.
Ashton-under-Lyne Infirmary	...	...	Tonsils and adenoids; eye defects; X-ray treatment of ringworm.
*Barton-upon-Irwell Park Hospital	...	...	Tonsils and adenoids.
Blackburn Infirmary	...	...	Tonsils and adenoids; eye defects; X-ray treatment of ringworm.
Bolton Infirmary	...	...	Do.
Bury Infirmary	...	...	Do.
Burnley Victoria Hospital	...	...	Tonsils and adenoids; eye defects.
*Fleetwood Hospital	...	...	Tonsils and adenoids.
Hartley Hospital, Colne	...	...	Do.; eye defects.
Leigh Borough Clinie	...	...	Tonsils and adenoids.
Myrtle Street Hospital, Liverpool	...	...	Tonsils and adenoids; eye defects.
Oldham Infirmary	...	...	Tonsils and adenoids; eye defects; X-ray treatment of ringworm.
Ormskirk Cottage Hospital	...	...	Tonsils and adenoids; eye defects.
Peasley Cross Hospital, St. Helens	...	...	Do.
Preston Infirmary	...	...	Tonsils and adenoids; eye defects; X-ray treatment of ringworm.
*Ramsbottom Cottage Hospital	...	...	Tonsils and adenoids.
St. Paul's Hospital, Liverpool	...	...	Eye defects.
Ulverston Cottage Hospital	...	...	Tonsils and adenoids.
Warrington Infirmary	...	...	Tonsils and adenoids; eye defects.
*Widnes Accident Hospital	...	...	Tonsils and adenoids.
Wigan Infirmary	...	...	Tonsils and adenoids.
Ethel Hedley Orthopædic Hospital, Winder- mere	...	...	Crippling defects.
Home for Crippled Children, Bamford, near Rochdale	...	...	Do.
Aneoats Hospital, Manchester	...	...	Do.
Myrtle Street Children's Hospital, Liverpool	...	...	Do.
Liverpool Children's Hospital, Heswall	...	...	Do.

MINOR AILMENTS.

These include such defects as running ears, external eye disease, skin diseases, &c., and treatment for them is available for approximately 50,000 children, additional provision having been made in Audenshaw, Oswaldtwistle, Padiham and Ulverston.

TONSILS AND ADENOIDS.

Arrangements are now in force with the following Hospitals and Clinics for the operative treatment of Tonsils and Adenoids :—Aneoats Hospital, Manchester, Ashton-under-Lyne Infirmary, Barton-upon-Irwell Union Hospital, Blackburn Infirmary, Bolton Infirmary, Bury Infirmary, Burnley Victoria Hospital, Fleetwood Hospital, Hartley Hospital, Colne, Leigh Borough Clinie, Myrtle Street Hospital, Liverpool, Oldham Infirmary, Ormskirk Cottage Hospital, Peasley Cross Hospital, St. Helens, Preston Infirmary, Ramsbottom Cottage Hospital, Ulverston Cottage Hospital, Warrington Infirmary, Widnes Accident Hospital, Wigan Infirmary.

During the year the number of children who received operative treatment for this condition was 1,780, of whom 1,451 were treated under the County scheme.

TUBERCULOSIS.

The treatment of tuberculous school children is in the hands of the Tuberculosis Committee of the Lancashire County Council, and all cases for treatment are referred to the Tuberculosis Officer for the area concerned.

VISION.

The treatment of defects of vision is undertaken either in the Eye Departments of General Hospitals or in the Eye Departments of the County's own Clinics. In the former case it is undertaken by the Specialist Staff of the Hospital; in the latter case by part-time Visiting Specialists. Arrangements have been made with the following Hospitals :—Ashton-under-Lyne, Blackburn, Bolton, Burnley, Bury, Colne, Oldham, Ormskirk, Preston, St. Helens, Warrington, Liverpool Myrtle Street Eye and Ear Hospital and St. Paul's Eye Hospital.

Visiting Specialists attend at the School Clinics in Ashton-in-Makerfield, Audenshaw, Dalton-in-Furness, Fleetwood, Haydock, Horwich, Irlam, Kearsley, Lancaster, Litherland, Leyland, Littleborough, Oswaldtwistle, Padiham, Preseot, Rishton, Rochdale, Royton, Ramsbottom, Tyldesley, Ulverston, Whitefield, and Westhoughton.

The number of children for whom Specialist eye treatment is available is approximately 120,000. The number of children who received treatment for defective vision or squint was 4,804 of whom 4,301 were dealt with under the County scheme.

Arrangements have also been made with certain firms of opticians, in connection with each Ophthalmic Clinic or Hospital, to supply spectacles at a low fixed charge. In necessitous cases the charge is reduced or remitted altogether. The number of children who either purchased or received free spectacles under this scheme was 2,555.

In one area a local charity has arranged for the treatment of visual defect in Elementary School children, and provides spectacles free of charge to every child requiring them.

DENTAL DEFECTS.

The dental staff now consists of thirteen full-time and one part-time dental surgeons, each assisted by a nurse or dental attendant. Dental Clinics have been established in Ashton-in-Makerfield, Audenshaw, Dalton-in-Furness, Fleetwood, Great Crosby, Haydock, Horwich, Irlam, Kearsley, Leyland, Litherland, Littleborough, Ormskirk, Oswaldtwistle, Padiham, Preseot, Ramsbottom, Rishton, Royton, Tyldesley, Ulverston, Westhoughton, and Whitefield.

These Clinics serve schools with an average attendance of 45,000 children. The number of children who received treatment during the year was 17,061.

As it is impossible, owing to the large number requiring treatment, to attend to all children, the energies of the dentists are concentrated on the younger groups of children during the eruption of the first permanent teeth.

Apart from this routine work, the dentists treat the following classes :—

- (a) Expectant and Nursing Mothers, on the recommendation of the Medical Officers ;
- (b) Children under school age, similarly ;
- (c) Casuals.

Casuals are of three classes :—

- (a) Urgent cases, e.g. toothache, dental abscess ;
- (b) Cases where the mouth has to be put into a clean condition previous to operation for tonsils and adenoids ;
- (c) Cases in which the Medical Officer requests that dental treatment should be given for some other medical reason, e.g., anæmia.

(B) Outside the area of the Administrative County for Elementary Education, i.e., the County School Medical area, there are 19 Non-County Boroughs, and the following eight Urban Districts : Chadderton, Farnworth, Hindley, Ince-in-Makerfield, Radcliffe, Stretford, Swinton and Pendlebury, and Waterloo-with-Seaforth. In each of these areas, with the exception of Morecambe and Heysham (B), a School Clinic has been established. At Morecambe and Heysham (B) building operations are in progress, and the Clinic is expected to be opened early next year.

Tuberculosis Dispensaries.—Five “ Chief ” and 19 “ Branch ” dispensaries have been established by the County Tuberculosis Committee, the dispensary areas covering the whole of the Administrative County. Details as to the situation of the premises, the medical and nursing staff, days and hours of sessions, &c., are given in Dr. Cox’s Annual Report.

Venereal Diseases Treatment Centres.—Particulars of the County Council scheme for the diagnosis and treatment of venereal diseases and a list of the Treatment Centres are given on pages 131 to 136.

Ambulance Facilities.—In almost every County district ambulance facilities are available both for infectious cases and for non-infectious and accident cases, as will be seen below :—

				For infectious cases— No. of Districts.	For non- infectious and accident cases— No. of Districts.
Motor Vehicle	...	...	98	...	109
Horse	„	...	17	...	4
Hand Appliance	...	...	—	...	2
Nil	...	...	4	...	4

PUBLIC HEALTH OFFICERS OF THE COUNTY AND OF LOCAL AUTHORITIES.

COUNTY STAFF.

(Jointly with the School Medical and Child Welfare Department).

County Medical Officer of Health and School Medical Officer :

J. J. BUTTERWORTH, M.D., Ch.B., D.P.H.

Chief Assistant County Medical Officers :

J. FERGUSON, B.A., M.B., Ch.B., D.P.H. (Resigned 31st May, 1929).

R. H. W. FISHER, M.A., M.R.C.S., L.R.C.P., D.P.H.

E. H. SCHOLEFIELD, M.A., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.

Assistant County Medical Officers :

L. E. H. R. BARKER, B.A., M.B., Ch.B., D.P.H.

R. J. BATTY, B.Sc., M.B., Ch.B., D.P.H.

W. C. V. BROTHWOOD, M.B., Ch.B., D.P.H.

CATHERINE L. CORBETT, M.B., Ch.B., D.P.H.

A. C. CRAWFORD, M.B., Ch.B., D.P.H., D.T.M.

H. L. CRONK, M.A., M.D., Ch.B., M.R.C.S.,
L.R.C.P., D.P.H. (Resigned 30 June, 1929)R. M. GALLOWAY, M.D., Ch.B., M.R.C.S.,
L.R.C.P., D.P.H.WINNIEFRED M. GRAY, M.A., M.B., Ch.B.,
D.P.H.

F. HALL, M.D., Ch.B., D.P.H., B.L.

H. HOLROYD, M.B., B.S., D.P.H.

GLADYS H. HUTCHINSON, M.B., Ch.B.

J. R. JAGGER, M.B., Ch.B., D.P.H.

G. G. JOHNSTONE, M.C., M.A., M.D., Ch.B.,
D.P.H.J. H. PORTER, M.A., M.B., Ch.B., M.R.C.S.,
L.R.C.P., D.P.H.

A. V. STOCKS, M.A., M.B., Ch.B., D.P.H.

J. A. TOMB, M.B., Ch.B., D.P.H.

A. TOPPING, M.A., M.D., Ch.B., D.P.H.

J. G. WILSON, M.D., B.S., M.R.C.S., M.R.C.P.,
D.P.H.

G. G. WRAY, M.D., Ch.B., D.P.H.

S. N. WRIGHT, M.Sc., M.B., Ch.B., D.P.H.

Dental Surgeons :

H. J. APPELYARD, L.R.C.P., L.R.C.S., L.D.S.

J. B. DAVIES, L.D.S.

F. J. W. DEWHURST, L.D.S.

R. E. HODGSON, L.D.S.

H. B. IVERS, M.C., L.D.S.

(Resigned 31st October, 1928)

J. KERSHAW, L.M.S.S.A., L.D.S.

W. A. LINNELL, L.D.S.

T. G. LLOYD, L.D.S.

I. F. McASH, L.R.C.P., L.R.C.S., L.D.S.

G. G. MACPHEE, M.A., M.B., Ch.B., L.D.S.

F. D. MANNERS, L.D.S.

E. V. POLLITT, L.D.S.

A. W. POOLE, L.D.S.

T. H. WIGNALL, L.D.S.

A. CLEAVER, L.D.S. (part-time).

Ophthalmic Surgeons (part-time) :

E. ALLAN, M.B., Ch.B.

H. H. BYWATER, M.D., Ch.B., D.Ch.O.,
F.R.C.S.

O. M. DUTHIE, M.D., Ch.B.

G. A. JELLY, F.R.C.S., L.R.C.P., L.S.A.,
D.P.H.

N. MACINNES, M.A., M.B., Ch.B.

H. G. PARKER, F.R.C.S., L.R.C.P., L.R.F.P.S.

J. F. PENMAN, M.B., Ch.B.

F. C. PLUMMER, M.D. Ch.B.

G. A. RENWICK, M.B., Ch.M.

T. SNOWBALL, M.A., M.B., Ch.B.

W. SYKES, L.R.C.P., L.R.C.S., L.R.F.P.S.

J. M. WISHART, M.B., Ch.B., F.R.C.S.

Honorary Consulting Orthopædic Surgeon :

SIR ROBERT JONES, Bart., K.B.E., C.B., F.R.C.S., LL.D., D.Sc.

Orthopædic Surgeons (part-time) :

H. PLATT, M.D., M.S., F.R.C.S.

T. P. McMURRAY, M.Ch., F.R.C.S.

Junior Orthopædic Surgeons (part-time) :

E. S. BRENTNALL, M.B., F.R.C.S.

S. M. MILNER, M.A., M.B., F.R.C.S.

B. L. McFARLAND, M.D., M.Ch.(Orth.), F.R.C.S.

H. POSTON, M.B., M.Ch.

Biddulph Grange Orthopædic Hospital—Senior House Surgeon :

MARGARET H. GREG, M.R.C.S., L.R.C.P.

Hospital Matron :

Miss M. ROCHELL.

County Sanitary Officers :

A. T. EGINTON, F.S.I. (Chief).

G. W. MASON.

R. KEELEY.

J. MERCER.

Principal Clerk, and County Inspector, Shops Acts :

J. E. GEE.

County Inspector of Midwives :

Miss E. J. B. WRIGHT.

Organiser and Lecturer under Venereal Diseases Scheme

(In co-operation with the British Social Hygiene Council):

Miss M. M. TIPPER.

30 Veterinary Surgeons (part-time)

(For purposes of the Milk and Dairies Act).

60 School Nurses and Health Visitors.**3 Orthopædic Nurses.****County Analyst :**

G. D. ELSDON, B.Sc., F.I.C.

PUBLIC HEALTH OFFICERS OF LOCAL AUTHORITIES.

URBAN DISTRICT.	Public Health Officers.	URBAN DISTRICT.	Public Health Officers.
Abram	M.O. A. R. Erskine. S.I. W. H. Roby. S.I. R. Allen.	Croston	M.O. A. Duckworth. S.I. T. W. Noblet.
Accrington (B) ...	M.O. A. Greenhalgh. S.I. J. A. Hindle. S.I. J. E. Spencer. H.V. 1.	Dalton-in-Furness ...	M.O. G. H. Patterson (whole time with Grange, Ulverston, and Ulverston R). S.I. W. E. Caine.
Adlington	M.O. W. C. Rigby. S.I. T. Warwick.	Darwen (B)	M.O. J. Robertson (whole time). S.I. C. R. Walsh. S.I. F. Littlecott (W. E. Marsden to 2nd April, 1928). S.I. E. P. McGlynn. H.V. 2.
Ashton-in-Makerfield	M.O. H. Winstanley S.I. D. Gamble. S.I. T. Whitter. H.V. 1.	Denton	M.O. W. Stewart. S.I. A. C. Brocklehurst. H.V. 1.
Ashton-under-Lyne (B)	M.O. J. W. Talent (whole time). S.I. W. C. Morris. S.I. C. Sharples. H.V. 3.	Droylsden	M.O. A. W. Laing. S.I. F. Schofield.
Aspull	M.O. L. Cooke. S.I. J. Eccleshaw.	Eccles (B)	M.O. J. E. Spence (whole time). S.I. C. W. Laskey. S.I. G. V. Hulse. S.I. H. R. Taylor. S.I. T. P. Hardman (to 31st January, 1928). H.V. 5.
Atherton	M.O. W. H. Leigh (J. Marsh, to 30th April, 1928). S.I. F. Markland. H.V. 1.	Failsworth	M.O. G. B. Brown. S.I. J. A. James. H.V. 1.
Audenshaw	M.O. A. Sutherland (W. R. Judd to March, 1928). S.I. H. M. Doxey.	Farnworth	M.O. A. G. Glass (whole time with Kearsley). S.I. J. Marshall. S.I. H. T. Ogden. S.I. S. Seel. H.V. 2.
Bacup (B)	M.O. J. P. Brown. S.I. A. E. Barnes. H.V. 2.	Fleetwood	M.O. J. Colgan. S.I. G. Pilkington. S.I. A. Dale (I. N. Creear to 5th March, 1928).
Barrowford	M.O. R. G. Markham (whole time with Nelson B). S.I. D. W. Hood (T. C. Slack to 31st January, 1928).	Formby	M.O. F. Carter. S.I. J. Hodge.
Billinge-and-Winstanley	M.O. R. O. Mather. S.I. J. J. Perkins.	Fulwood	M.O. C. J. Trimble. S.I. F. Higginson.
Blackrod	M.O. J. W. Unsworth. S.I. J. Moore.	Golborne	M.O. J. Bennett. S.I. A. Clough (J. Ford to 30th June, 1928 ; F. I. F. Rees from Aug. to Nov., 1928.) H.V. 1.
Brierfield	M.O. J. S. Wilson. S.I. W. D. Haigh. H.V. 1.	Grange-over-Sands ...	M.O. G. H. Patterson (whole time with Dalton, Ulverston, and Ulverston R). S.I. T. Huddleston.
Carnforth	M.O. E. S. Jackson. S.I. F. Holt.	Great Crosby	M.O. A. J. W. Cunningham (J. Huskie to 29th February, 1928). S.I. J. Almond.
Chadderton	M.O. J. Wood (whole time). S.I. A. Ashworth. S.I. H. Prenton. H.V. 2.	Great Harwood	M.O. J. K. Cumming. S.I. A. Eddleston. H.V. 1.
Chorley (B)	M.O. H. E. Middlebrooke (whole time). S.I. W. Heaps. S.I. R. P. B. Lund. H.V. 2.	Haslingden (B)	M.O. A. Bremner. S.I. R. Austin. S.I. A. Warburton. H.V. 1.
Church	M.O. F. W. Pare. S.I. F. Howarth.	Haydock	M.O. A. Dowling. S.I. J. Evans.
Clayton-le-Moors ...	M.O. L. Tattersall. S.I. J. H. Bridge.		
Clitheroe (B)	M.O. W. E. Barker. S.I. J. Bolton. H.V. 1.		
Colne (B)	M.O. W. Alexander (Acting) (W. Doyle, whole time, to 18th May, 1929). S.I. A. Fortune. H.V. 1.		
Crompton	M.O. K. D. Murchison S.I. F. Taylor.		

PUBLIC HEALTH OFFICERS OF LOCAL AUTHORITIES—*continued.*

URBAN DISTRICT.	Public Health Officers.	URBAN DISTRICT.	Public Health Officers.
Heywood (B) ...	M.O. F. W. C. Brown (whole time). S.I. J. E. Cropper. H.V. 3.	Middleton (B) ...	M.O. S. T. Beggs (whole time). S.I. C. H. Norton. S.I. T. Turner H.V. 3.
Hindley ...	M.O. R. K. Nisbet (whole time). S.I. T. France. H.V. 1.	Milnrow ...	M.O. (C. B. P. Spencer to 19th March, 1929). S.I. T. Warrington.
Horwich ...	M.O. J. S. Sewell. S.I. J. H. Brocklehurst. H.V. 2.	Morecambe and Heysham (B) ...	M.O. J. W. Watterson. S.I. H. Morgans. S.I. W. S. Makin.
Huyton-with-Roby ...	M.O. A. W. McDonald. S.I. R. J. Pritchard.	Mossley (B) ...	M.O. L. White (J. Healey to 28th February, 1929). S.I. E. Slater. S.I. J. M. Arden. H.V. 1.
Ince-in-Makerfield ...	M.O. G. H. Potter. S.I. W. Thorpe. H.V. 2.	Nelson (B) ...	M.O. R. G. Markham (whole time with Barrowford). S.I. J. W. Ingham. S.I. S. Grindrod. S.I. S. Haydock. H.V. 2.
Irlam ...	M.O. J. W. Roberts. S.I. R. Rutter.	Newton-in-Makerfield	M.O. H. E. Watkins. S.I. H. Ashcroft. H.V. 1.
Kearsley ...	M.O. A. G. Glass (whole time with Farnworth). S.I. E. Shaw.	Norden ...	M.O. W. H. Bateman. S.I. A. E. Duncan (J. H. Crosby to 24th March, 1928).
Kirkham ...	M.O. C. Court. S.I. J. R. Holmes.	Ormskirk ...	M.O. J. Young. S.I. H. W. Chadwick.
Lancaster (B)...	M.O. J. D. Buchanan (whole time) S.I. F. W. Smith. S.I. H. Scholefield. S.I. W. W. Jackson (G. Grieve to 11th May, 1928). H.V. 4.	Orrell ...	M.O. K. Fraser. S.I. J. Farrimond. H.V. 1.
Lathom and Burscough	M.O. A. Speight. S.I. T. Burrows.	Oswaldtwistle ...	M.O. A. E. Townley. S.I. P. J. Fisher.
Lees ...	M.O. J. Currie. S.I. Harold Boardman.	Padiham ...	M.O. J. W. J. Forsythe. S.I. G. Egner.
Leigh (B) ...	M.O. J. C. Beckitt (whole time). S.I. E. Jackson. S.I. W. T. Frost. S.I. A. N. Nicklin. H.V. 6.	Poulton-le-Fylde ...	M.O. J. K. Thomas. S.I. P. A. Watford.
Leyland ...	M.O. C. M. Willmott. S.I. H. Cheetham.	Preesall ...	M.O. S. A. Nield-Faulkner. S.I. H. Turner.
Litherland ...	M.O. T. D. Williams. S.I. H. W. Monks.	Prescot ...	M.O. S. M. Green. S.I. J. E. Hart.
Littleborough...	M.O. J. T. R. MacGill. S.I. H. E. Williamson.	Prestwich ...	M.O. H. C. Burbidge. S.I. W. Windsor. H.V. 1.
Little Crosby ...	M.O. A. J. W. Cunningham. S.I. T. Massam.	Radcliffe ...	M.O. W. S. Haydock (whole time). S.I. W. Holt. H.V. 2.
Little Hulton ...	M.O. J. H. Marsh. S.I. J. T. Davies.	Rainford ...	M.O. F. Prosser. S.I. E. S. Rosbotham.
Little Lever ...	M.O. W. Mottershead. S.I. G. R. Butler.	Ramsbottom ...	M.O. H. Lawrie. S.I. G. A. Shaw. H.V. 1.
Longridge ...	M.O. G. Jukes. S.I. J. Marshall.	Rawtenstall (B) ...	M.O. J. E. Helm. S.I. W. E. Hoyle. H.V. 2.
Lytham Saint Anne's(B)	M.O. J. P. Litt (whole time). S.I. H. Yates. S.I. F. Haworth. H.V. 2.	Rishton ...	M.O. J. Barr. S.I. J. C. Almond.
		Royton ...	M.O. W. L. Bentley. S.I. J. Butterfield. H.V. 1.

PUBLIC HEALTH OFFICERS OF LOCAL AUTHORITIES—*continued.*

URBAN DISTRICT.	Public Health Officers.	URBAN DISTRICT.	Public Health Officers.
Skelmersdale	M.O. H. E. Marsden (V. O'Reilly to 11th June, 1928). S.I. E. Huntington.	Withnell	M.O. T. P. Leighton. S.I. A. Penney.
Standish-with-Langtree	M.O. G. H. Ormsby. S.I. A. A. Smith (C. L. Gregson to 7th December, 1928).	Worsley	M.O. T. E. Kavanagh. S.I. W. Allen.
Stretford	M.O. E. H. Walker (whole time). S.I. S. Massey. S.I. R. C. Jackson. S.I. T. E. Bowker. S.I. H. Wrigley. S.I. A. Schofield. S.I. Miss McGarvie. H.V. 3.	RURAL DISTRICT.	
Swinton and Pendlebury	M.O. H. C. Mulholland (whole time). S.I. A. Bleakley. S.I. P. E. Berry. S.I. G. E. Taylor. S.I. L. A. Marshall. S.I. A. S. Kershaw. H.V. 2.	Barton-upon-Irwell ...	M.O. D. W. Davidson. S.I. R. G. Child.
Thornton Cleveleys ...	M.O. F. S. Rhodes. S.I. H. Fenton.	Blackburn	M.O. C. M. Bradley. S.I. H. Eccleston.
Tottington	M.O. G. Crawshaw. S.I. L. Kenyon. S.I. J. F. Smithie (part time).	Burnley	M.O. H. J. Robinson. S.I. A. Johnson.
Trawden	M.O. G. Skeen. S.I. J. H. Tatham.	Bury	M.O. H. Smith (J. W. Cook to 17th May, 1928; W. Morrison to 31st October, 1928). S.I. H. Hurst.
Turton	M.O. H. Robinson. S.I. A. McMorris.	Chorley	M.O. J. Rigby. S.I. H. F. Froes. S.I. A. Fowler.
Tyldesley-with Shakerley	M.O. T. E. Fliteroft (A. J. Lowe to 13th April, 1928). S.I. J. Smith. H.V. 1.	Clitheroe	M.O. J. M. Postlethwaite. S.I. W. H. Jackson.
Ulverston	M.O. G. H. Patterson (whole time with Dalton, Grange, and Ulverston R). S.I. C. T. Hague.	Fylde	M.O. C. Court. S.I. F. S. Roscoe.
Upholland	M.O. F. H. Browne. S.I. A. Hunt. S.I. K. G. Hunt. H.V. 1.	Garstang	M.O. N. R. Ussher (W. L. Armstrong to 15th August, 1928). S.I. J. Cook. S.I. J. B. Cook.
Urmston	M.O. G. E. Fryer. S.I. J. Heath. S.I. P. A. Reece.	Lancaster	M.O. W. Edmondson. S.I. J. Littlefair.
Walton-le-Dale ...	M.O. C. J. Trimble. S.I. N. Baron.	Leigh	M.O. S. H. Ryan. S.I. J. Monks.
Wardle	M.O. D. G. MacGill. S.I. E. A. Stewart (T. A. Noble to 31st March, 1928).	Limelhurst	M.O. G. F. Bowman. S.I. R. Thompson.
Waterloo-with-Seaforth	M.O. V. J. Glover. S.I. J. H. Cannell. S.I. A. E. Jones. H.V. 1.	Lunesdale	M.O. B. J. Acheson. S.I. E. Ellis.
Westhoughton ...	M.O. W. H. Leigh. S.I. F. J. A. Green. H.V. 2.	Preston	M.O. C. J. Trimble. S.I. T. Ashcroft S.I. H. Collier.
Whitefield	M.O. A. J. Young. S.I. R. C. Forster.	Sefton	M.O. A. J. W. Cunningham S.I. F. Pool.
Whitworth	M.O. T. J. L. Forbes. S.I. J. J. Cordingley.	Ulverston	M.O. G. H. Patterson (whole time with Dalton, Grange, and Ulverston U.D.) S.I. T. Hudson. S.I. J. F. A. Ellwood.
Widnes (B)	M.O. A. Jones (whole time). S.I. J. G. Macdonald. S.I. C. A. Pennington. S.I. E. F. Starkey. H.V. 7.	Warrington	M.O. J. Bennett. S.I. F. W. Kerfoot.
		West Lancashire ...	M.O. H. E. Marsden. S.I. T. G. H. Hunter. S.I. J. Ainsworth.
		Whiston	M.O. T. U. Mercer. S.I. W. H. Bone. S.I. C. Hitchen.
		Wigan	M.O. G. H. Ormsby. S.I. E. A. Lynne (F. I. F. Rees to 7th August, 1928).

PAYMENTS TOWARDS SALARIES OF PUBLIC HEALTH OFFICERS.—From the Exchequer Contribution Account payments towards the salaries of public health officials are made by the County Council, under Section 24 of the Local Government Act, 1888, to the Councils of 19 boroughs, 80 urban districts, 19 rural districts, and two port sanitary districts. The total payments during the financial year ended March 31st, 1929, amounted to £28,186 19s. 7d., of which £10,198 5s. 7d. was in respect of Medical Officers of Health, and £17,988 14s. 0d. for Sanitary Inspectors.

Contributions towards the salaries of Medical Officers of Health and Sanitary Inspectors are made out of the Exchequer Grants to all districts except Morecambe and Heysham (B), and Stretford for the Medical Officers of Health, and Ashton-under-Lyne (B), Little Crosby, Mossley (B), Stretford, Trawden and Upholland for the Sanitary Inspectors. No grants are payable in respect of Assistant Sanitary Inspectors.

VETERINARY OFFICERS.—The part-time services of veterinary surgeons are available, by arrangement, for the inspection of dairy cows, &c., other than as required by the Tuberculosis Order, in Ashton-under-Lyne (B), Atherton, Chorley (B), Darwen (B), Eccles (B), Farnworth, Horwich, Leigh (B), Lytham Saint Anne's (B), Nelson (B), Swinton and Pendlebury, and Whitefield.

For the purposes of the Milk and Dairies (Consolidation) Act, 1915, in connection with the inspection of cattle in cases where tubercle bacilli have been found in milk, the County Council employ, as required, 30 Veterinary Surgeons resident in all parts of the County area. These Veterinary Inspectors are also employed by the County Council for the purposes of the Diseases of Animals Acts.

Professional Nursing in the Home.—(A) GENERAL. (B) FOR INFECTIOUS DISEASES.—From the replies given by local Medical Officers of Health as to the nature of arrangements made by the Local Authority in the district for (a) general nursing, and (b) for infectious diseases, e.g., measles, etc., it appears that in very few areas are arrangements made by the authority for general nursing. The work of District Nursing Associations is referred to in the next paragraph. For the nursing of infectious cases, the following local authorities, amongst others, are willing to provide nursing assistance, if required:—Ashton-under-Lyne (B), Atherton, Chorley (B), Eccles (B), Heywood (B), Horwich, Leigh (B), Middleton (B) scheme under consideration, Nelson (B), Swinton and Pendlebury, Widnes (B), etc.

District Nursing Associations.—In 94 County districts, 172 nurses are employed by District Nursing Associations, and in other areas the formation of local Associations is under consideration. Financial assistance is given by the Local Authority to the Nursing Association in the following districts:—Ashton-under-Lyne (B), £50 per annum; Chorley (B), £20; Darwen (B), £10 10s., and 1s. per visit; Droylsden, £10; Farnworth, £10 10s.; Laneaster (B), £75 for midwifery and £60 for home nursing; Little Lever, £10 10s.; Middleton (B), £10; Morecambe and Heysham (B), £50, and £70 to the St. John's Ambulance Association; Nelson (B), £10 10s., and a fee for each visit; Newton-in-Makerfield, £5; Radcliffe, £10 10s.; Rawtenstall (B), 4d. per visit to children under five years of age; Ulverston, Whitefield, Widnes (B), £50; etc.

In 55 districts, it is stated, the local authorities contribute to voluntary hospitals.

Midwives.—No local authority, apart from the County Council, employs or subsidises a practising midwife. The number of midwives practising in the County area at the end of the year 1928 was 768. The work carried out by the County Council under the Midwives Acts is detailed on pages 137 to 143.

Chemical Work.—The County Council Laboratory is situated in Liverpool. Extracts from the annual report of the County Analyst, giving particulars of the work done under the Food and Drugs (Adulteration) Acts, and other Acts and Regulations, are printed on pages 93 to 105.

Legislation in Force.—The district health reports contain lists of special Local Acts or Local Orders, and of the byelaws relating to public health.

SANITARY CIRCUMSTANCES IN THE COUNTY.

Water.—The Administrative County area, particularly the populous portion, is, on the whole, well supplied with a constant, plentiful, and pure water supply. There are, however, outlying portions of urban districts, and parishes, or parts of parishes in rural districts where the supply is unsatisfactory or inadequate. In some of these areas access to public supplies is difficult, and, taking into consideration the financial problem, almost impracticable. The Local Government Act of 1929 may solve some of these problems.

The demand for improved sanitation has resulted in an increased water consumption for domestic purposes. With the development of housing schemes, particularly in the rural parts of districts, considerable extension of water mains has been necessary. The principal extensions are referred to in a later paragraph.

Table 6 shows the source of the water supply to each sanitary district, the number of dwelling-houses supplied direct from the mains, or from stand pipes :—

TABLE 6—WATER SUPPLY.

DISTRICT.	SOURCES AND QUALITY.	APPROXIMATE NUMBER OF HOUSES SUPPLIED.	
		DIRECT.	BY STANDPIPE.
URBAN.			
Abram	Liverpool	1446	...
Accrington (B)	Dean Clough, Mitchell House, and Burnley Road Reservoirs ; also deep well.	11897	...
Adlington	Blackrod. Horwich Moors ... Manchester—Thirlmere	All.	...
Ashton-in-Makerfield ...	Own works and 100,000 gals. daily from Rivington.	4219	4
Ashton-under-Lyne (B) ...	Ashton-under-Lyne, &c. Waterworks Joint Committee. Excellent	All.	...
Aspull	Bolton. Good	1667	...
Atherton	Manchester and Bolton. Good ...	4597	...
Audenshaw	Ashton-under-Lyne, &c. Waterworks Joint Committee. Good.	2000	...
Bacup (B)	Moorland. Good	4808	...
Barrowford	Nelson. Constant	All.	...
Billinge-and-Winstanley ...	Old quarry workings. Good ; hard.	991	...
Blackrod	Own Waterworks. Good ...	888	...
Brierfield	Nelson. Constant	2369	...
Carnforth	Reservoir at Withets. Good ...	828	...
Chadderton	Oldham, Heywood and Middleton ; Spring for a few houses.	6872	...
Chorley (B)	Rivington Reservoirs. Good ...	8050	...
Church	Accrington and District Water Board and Oswaldtwistle U.D.C.	All.	...
Clayton-le-Moors	Upland surface. Good	All.	...
Clitheroe (B)	Accrington District Water Board. Upland. Excellent	All.	...
Colne (B)	Springs and moorland. Good ...	7148	...
Crompton	Oldham mainly	3894	...
Croston	Manchester—Thirlmere	482	...
Dalton-in-Furness	Reservoir at Powka Beck ...	Practically all.	Few in one township.
Darwen (B)	Upland surface. Good	10422	...
Denton	Manchester	4718	...
Droylsden	Manchester. Very good ...	3304	...
Eccles (B)	Manchester	All.	...
Failsworth	Oldham and Manchester. Good	3719	...
Farnworth	Bolton	6860	...
Fleetwood	Fylde Water Board. Good ...	4596	11 Caravans.
Formby	Southport Water Board	1750	...
Fulwood	Upland gathering area. Good	1400	...

TABLE 6—continued.

DISTRICT.	SOURCES AND QUALITY.	APPROXIMATE NUMBER OF HOUSES SUPPLIED.	
		DIRECT.	BY STANDPIPE.
URBAN.			
Golborne	Bulk supply from Ince	1576	...
Grange-over-Sands ...	Hills at Newton. Excellent ...	Practically all.	...
Great Crosby	Liverpool. Good	4002	...
Great Harwood	Dean Clough. Good	All except 20.	...
Haslingden (B)	Bury & Dist. Joint Board. Good	4064	734
Haydock	Rivington. Good	2000	(other supplies) 3
Heywood (B)	Heywood and Middleton Water Board. Good.	7148	...
Hindley	Rivington Reservoirs. Good ...	4996	...
Horwich	Moorland and Pumping Station. Good.	4131	...
Huyton-with-Roby ...	Liverpool	1130	...
Ince-in-Makerfield ...	Deep wells at Golborne and Rivington Reservoirs.	4396	21
Irlam	Manchester; Warrington; 5 pumps, wells, &c. Good.	2812	...
Kearsley	Bolton. Soft	2426	...
Kirkham	Fylde Water Board. Good ...	1040	...
Lancaster (B)	Wyresdale	9400	400
Lathom and Burscough ...	Two Boreholes at Burscough. Excellent.	1744	...
Lees	Oldham. Good	All.	...
Leigh (B)	Rivington	10900	...
Leyland	Thirlmere and deep well at Clayton-le-Woods. Good.	2328	...
Litherland	Liverpool. Good	3382	2
Littleborough	Rochdale. Good	8100	...
Little Crosby	Liverpool. Very good	250	3
Little Hulton	Bolton. Good	All.	...
Little Lever... ..	Bury & Dist. Joint Water Board	All but one.	...
Longridge	Preston. Very good	1059	...
Lytham Saint Anne's (B) ...	Fylde Water Board. Excellent ...	7055	...
Middleton (B)	Middleton & Heywood Water Board.	7851	...
Milnrow	Rochdale. Good	2050	...
Morecambe & Heysham (B)	Chiefly millstone grit supplied by Corporation of Lancaster.	5600	...
Mossley (B)	Moorland, Swineshaw and Yeoman Hey Reservoirs. Good.	Most.	...
Nelson (B)	Moorland. Good	All.	...
Newton-in-Makerfield ...	Deep wells (2) and headings ...	All (except 13)	...

TABLE 6—*continued.*

DISTRICT.	SOURCES AND QUALITY.	APPROXIMATE NUMBER OF HOUSES SUPPLIED.	
		DIRECT.	BY STANDPIPE.
URBAN.			
Norden	Heywood & Middleton Water Board and a few private supplies. Rochdale Corporation.	1073 and 195 private sources	...
Ormskirk	Red sandstone	1524	81
Orrell	Upland surface water. Good	1650	...
Oswaldtwistle	Own works. Quality not satisfactory.	8500	...
Padiham	Pendle Hill. Good	3254	...
Poulton-le-Fylde	Fylde Water Board. Good ...	910	...
Preesall	Fylde Water Board. Good ...	530	...
Prescot	Liverpool. Good	All.	...
Prestwich	Manchester and Bury & District Joint Board.	5866	...
Radcliffe	Bury & Dist. Joint Board. Good	6697	...
Rainford	St. Helens. Good	722	...
Ramsbottom	Joint Board and private. Good	3747	...
Rawtenstall (B)	Bury & Dist. Joint Board. Good	5342	...
Rishton	Accrington Gas & Water Board. Good	1820	...
Royton	Oldham. Good	4366	...
Skelmersdale	Artesian well. Good	1353	...
Standish-with-Langtree ...	Liverpool. Good	Practically all.	...
Stretford	Manchester, and 3 wells (wells fair)	13331	...
Swinton and Pendlebury	Manchester. Good	7777	...
Thornton Cleveleys ...	Fylde Water Board. Good ...	2449	...
Tottington	Bury & Dist. Joint Board. Good	1536	...
Trawden	Boring on Boulsworth Hill ...	700	...
Turton	Excellent. Bolton. Constant	3000	...
Tyldesley-with-Shakerley	Manchester. Good	All.	...
Ulverston	Pennington, Ulverston (R). Good	All.	Rosside Village
Upholland	Two deep wells. Good	1130	...
Urmston	Manchester. Good	2224	...
Walton-le-Dale	Deep well at School Lane and Thirlmere (Manchester Cor.).	3164	5
Wardle	Rochdale	702	...
Waterloo-with-Seaforth ...	Liverpool. Good	7316	6
Westhoughton	Bolton. Satisfactory	3398	...
Whitefield	Upland surface. Variable. ...	All.	...
Whitworth	Bacup and Rochdale. Good ...	714 from Rochdale.	...
Widnes (B)	Deep wells in sandstone. Exc'll'nt	8300	...

TABLE 6—*continued.*

DISTRICT.	SOURCES AND QUALITY.	APPROXIMATE NUMBER OF HOUSES SUPPLIED.	
		DIRECT.	BY STANDPIPE.
URBAN.			
Withnell	Liverpool. Satisfactory	750	37
Worsley	Manchester and Bolton. Good ...	4000	1
RURAL.			
Barton-upon-Irwell ...	Manchester and Bolton	All.	...
Blackburn	Blackburn, Darwen, Manchester, and private.	Not recorded.	...
Burnley	Upland surface and Springs. Good	5130	40
Bury	Bury and District Water Board, Heywood and Middleton Water Board, Bolton Corporation and private wells.	75%	...
Chorley	Thirlmere and Liverpool	4078	...
Clitheroe	Springs and wells	1250	...
Fylde	Fylde Water Board. Good ...	3173	10
Garstang	Fylde Water Board ; Manchester ; private mains ; deep and shallow wells.	1572	25
Lancaster	Lancaster, Manchester, Heysham and Carnforth. Wells and roof-water.	1213	25
Leigh	Leigh, Manchester, and others. Good	2544	8
Limehurst	Joint Board and Oldham... ..	Not recorded.	7
Lunesdale	Thirlmere and private reservoir ...	2027	51
Preston	Preston, Manchester and Fulwood. Good.	5341	...
Sefton	Mostly Liverpool. Excellent ...	566	18
Ulverston	Various	Not recorded.	...
Warrington	Warrington, Liverpool and a few wells.	3106	About 34
West Lancashire	Upland surface and deep wells ...	5141	30
Whiston	Various mains and wells. Mains good ; wells doubtful.	2200	34
Wigan	Springs and moorland. Good ...	2020	12

Improvements in the water supplies and extension of mains are reported from many districts. Adlington : An additional supply has been obtained from Thirlmere aqueduct. Accrington (B) : New borehole completed at Altham. Lancaster (B) : Mechanical filters installed at Langthwaite. Nelson (B) : Work proceeding on new reservoir. Lunesdale (R) : Halton supply extended. Ulverston (R) : Scheme for supplying water to Backbarrow, Haverthwaite and Lowwood determined upon, and will shortly be the subject of an application for sanction to a loan. Extension of mains include : Irlam, 2,332 yards ; Walton-le-Dale, 6,235 yards ; Oswaldtwistle, extensions to Belthorn, Knuzden and Duckworth Hall ; Garstang (R), extensions to Hambleton, Stalmine, Bilsborough, Cloughton and Myerscough ; Whiston (R), to Halewood, Whiston, Rainhill, Windle, Eccleston, etc.

Action was taken during the year in respect of actual or possible contamination at Irlam : Two wells in the Moss area liable to manurial contamination. Haydock : The Medical Officer of Health again refers to the possibility of contamination of an open reservoir situate in the midst of a crowded population. Oswaldtwistle : Reference as in previous years, to possible contamination from manuring of land adjoining the gathering ground. Ramsbottom : Private supplies liable to contamination from manured fields. There are several references in reports of rural districts to dangers of pollution of private supplies. At Heywood (B) the Water Board has acquired the whole of the gathering ground to ensure a pure water supply.

Liability to plumbo-solvent action.—This possibility is referred to in about twenty district reports, but in most instances it is said to be “slight.” Action has been taken to neutralise by the addition of lime, carbonates, etc., and by the provision of tin-lined pipes, etc.

Insufficient or inadequate supplies.—In several urban districts, outlying areas, houses in isolated positions or on high lands are inadequately supplied with water. In rural areas there are villages or hamlets without satisfactory supplies, for example: Fylde (R): Wharles and part of Treales. Garstang (R): Pilling, Winmarleigh, parts of Cleveleys, Forton, Cabus, Nateby, Out Rawcliffe, Inskip, Great Eecleston and Claughton. Lancaster (R): Cockerham, Thurnham and Silverdale in dry seasons. Leigh (R): Risley and Culcheth. Warrington (R): parts of Cuerdley. Whiston (R): portion of Hale. Wigan (R): Dalton and Wrightington.

Regional Water Committees.—A small booklet was issued in 1928 by the Ministry of Health stating in brief terms why Regional Water Committees should be appointed, what they should do, and how they should do it. The needs of each of the districts in a region should be ascertained and a definite policy recommended for meeting requirements. The findings of the regions could then be brought together, modified where necessary in the general interests, and in this way a national policy for the allocation of the water resources could be formulated and based on fact.

The South West Lancashire Regional Water Committee had under consideration two alternative schemes for the provision of further water supplies.

Rivers and Streams.—A very considerable portion of the Administrative County, including the main industrial area, is under the jurisdiction of the Mersey and Irwell and the Ribble Watershed Joint Committees as regards the pollution of rivers and streams. Elsewhere the County Council is the authority.

On the 21st September, 1928, the Ministry of Health issued Circular 922 following the issue of the first report of the Joint Advisory Committee on River Pollution. This Committee recommended, amongst other things, the establishment of Rivers Boards where such did not already exist, expressly for the prevention of pollution, with jurisdiction over the whole area traversed by a river and its tributaries, at least to the extent of non-tidal waters. The Circular mentioned, followed by No. 964, 7th March, 1929, advised each County and County Borough Council, which is not now a constituent member of a joint body for the prevention of river pollution, to consider immediately the advisability of making an application for the setting up of a joint authority.

Drainage and Sewerage.—Each district report gives briefly the character of the sewage disposal works and the method of treatment, and also refers to any extension or improvement in character and sufficiency of the works, together with a statement of extension of sewers, &c., which has taken place during the year.

The following are given as examples of improvements effected during the year:—Brierfield: contact beds cleaned out and re-conditioned; Chadderton: number of back passages sewered to provide for closet conversion; Dalton-in-Furness: outfall from tanks reconstructed, also scheme for sewerage and sewage disposal of the hamlet of Greenhaume completed; Formby: septic tanks reconditioned and outfall repaired; Irlam: works undergoing reconstruction; Lytham Saint Anne's (B): new sewerage scheme of considerable magnitude nearing completion; Morecambe and Heysham (B): new scheme for Heysham in operation; Preesall: new system almost complete; Whitefield: scheme of enlargement under consideration; Preston (R): completion of Penwortham scheme effected; Ulverston (R): outfall for sewage of Bardsea provided, scheme for part of village of Seales carried out, Sandside sewer completed, plans and details of a scheme for Cartmel Town submitted to Ministry of Health, etc.

Extensions of sewers are reported from many districts.

The Medical Officer of Health of West Lancashire (R), referring to the rapid development of Lydiate indicates the need for a system of sewerage at a very early date.

Special investigations were made by the County Public Health staff in respect of drainage matters in several districts, including Carleton (Fylde R), Burtonwood (Warrington R.), etc.

Closet Accommodation.—Table 7, pages 52 to 58, shows approximately the number of the various types of closet accommodation in each of the County sanitary districts at the end of the year 1928.

The closet accommodation of the County districts at the end of 1928 may be summarized as under :—

	Urban districts.	Rural districts.	County.
Privy Middens	13,154	16,666	29,820
Privy Closets	20,528	20,752	41,280
Pail Closets	26,951	10,280	37,231
Water Closets	278,430	21,555	299,985
Waste-water Closets	84,694	4,145	88,839
Ashpits (excluding middens)	54,311	7,861	62,172
Movable Ashbins	261,657	20,280	281,937

The figures below, collated from local health reports, indicate the action taken in the County districts during 1928 and the preceding four years to abolish the insanitary types of privy, &c., accommodation :—

	1924	1925	1926	1927	1928
Privies converted to Water Closets	3256	3104	2451	2283	2845
Privies converted to Pail Closets	266	220	187	204	199
Pail Closets converted to Water Closets	3185	2623	1997	1530	1401

There are now 53 districts in the County area with less than fifty privy middens in their area. During the last nineteen years, approximately 63,000 privies have been abolished ; of the 29,820 which remain, 16,666 are in the rural parishes.

During the year 1928 conversions were most numerous in Golborne, 124 ; Haydock, 129 ; Heywood (B), 208 ; Hindley, 260 ; Limehurst (R), 98 ; Little Hulton, 158 ; Prescot, 96 ; West-houghton, 150 ; and Worsley, 237.

Scavenging.—Scavenging, refuse collection and disposal, and public cleansing are, according to the local reports, undertaken in the County districts as follow :—

By local authority in 94 districts.

By authority and contract, or by contract only in 13 districts.

By authority, by contract, and/or by owners or occupiers in 12 districts.

The following comments are taken from the district reports. Haslingden (B) : the emptying of pail closets is now done in the day-time instead of at night, and since the alteration no complaints have been received ; Heywood (B) : method of emptying privy middens not efficient ; Lancaster (B) : many complaints in regard to accumulation of house refuse ; Oswaldtwistle : reference to large amount of refuse to be collected ; about one-third consists of paper and other combustible matter, which could easily be destroyed in the home fire ; West Lancashire (R) : scavenging very insufficient in Hesketh, Tarleton, Rufford, Maghull and parts of Searisbrick ; schemes have been approved for the latter area and for Halsall ; Whiston (R) : not satisfactory in the areas where this work is left to occupiers.

In about 81 districts, the contents of privy middens are still removed in the day-time. In 64 districts—60 urban and 4 rural—motor vehicles have been provided for the removal of refuse.

REFUSE DESTRUCTORS.—Destructors have been provided in 28 districts, viz., Accrington (B), Atherton, Chadderton, Chorley (B), Clitheroe (B), Colne (B), Crompton, Darwen (B), Droylsden, Farnworth (2 incinerators), Haslingden (B), Heywood (B), Lancaster (B), Leigh (B), Litherland, Lytham Saint Anne's (B), Middleton (B), Morecambe and Heysham (B), Nelson (B), Ormskirk, Padiham, Prestwich, Radcliffe, Ramsbottom, Royton, Stretford, Swithon and Pendlebury, and Widnes (B). The refuse from Brierfield is dealt with at the Nelson (B) destructor. The Medical Officer for Grange-over-Sands states that the scheme for the disposal of house and trade refuse has received the approval of the Ministry of Health. Land has been acquired and preparations are well advanced for the erecting of the building and incinerator.

ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 7—CLOSET ACCOMMODATION.

URBAN DISTRICTS.		Privy Middens.		No. of Privy Closets.	No. of Ashpits (excluding middens).	No. of Freshwater Closets.	No. of Movable Ashbins.	No. of Waste Water Closets.	Council's Contribution towards Cost of Conversion.	CONVERSIONS DURING 1928.						TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		No. of Middens.	No. of Privy Closets.							Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Abram	214	...	Half-cost	5	17	...	2</

TABLE 7—continued.

URBAN DISTRICTS.										CONVERSIONS DURING 1928.						TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.																								
										Privy Middens.		No. of Privy Closets.	No. of Ashpits (excluding middens).	No. of Freshwater Closets.	No. of Movable Ashbins.	No. of Waste Water Closets.	Council's Contribution towards Cost of Conversion.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.												
Clitheroe (B)	1	2	111	14	1960	3500	1505	£4 per closet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Colne (B)	2	2	374	3928	1955	1772	4330	Half-cost	...	...	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Crompton	30	476	10	3546	3701	258	Whole cost	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croston	276	276	150	130	64	93	2	...	2	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dalton-in-Furness	82	149	10	549	2650	1647	56	...	9	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darwen (B)	198	12	8649	10916	2326	Half-cost	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Denton	24	44	36	160	4970	4379	520	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Droylsden	6	8	8	45	3912	3172	36	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eccles (B)	19	...	13368	11324	175	W.W.C.'s— £1 5s. per closet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Failsworth	19	33	136	3	4252	3923	189	Pails—Whole cost, Privies— Half-cost	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Farnworth	142	248	17	344	6984	6034	592	...	55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fleetwood	3	9	31	8	4464	4594	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Formby	82	86	423	275	1654	1246	...	...	2	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fulwood	21	21	14	27	2574	1288	3
Golborne	326	864	8	67	718	446	14	£4 per closet	124
Grange-over-Sands	11	11	2	215	642	373
Great Crosby	8	12	8	7	4196	4189	...	By agreement	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Harwood	43	1300	865	1942	2691	£5 per closet	70

TABLE 7—continued.

URBAN DISTRICTS.		Privy Middens.		No. of Pail Closets.	No. of Ashpits (excluding middens).	No. of Freshwater Closets.	No. of Movable Ashbins.	No. of Waste Water Closets.	Council's Contribution towards Cost of Conversion.	CONVERSIONS DURING 1928.						TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.													
		No. of Privy Closets.								Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.								
		No. of Middens.	No. of Privy Closets.																										
Haslingden (B)	...	2	4	496	534	1153	3600	2404	Half-cost	...	...	...	120	...	...	382	...	...	1	...	...	...	...	...	...	...	...	...	...
Haydock	...	724	711	4	10	1199	1187	...	£2 per closet and connection to sewer	129	...	...	...	...	518	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heywood (B)	...	429	750	419	1044	4224	3080	2851	Privies—£4 Pails—£10	208	...	...	25	...	454	76	...	...	...	...	...	...	...	...	...	...	...	...	...
Hindley	...	705	1072	667	52	3155	3929	22	Connection to sewer and water free	260	...	...	50	...	668	122	...	...	...	...	...	...	...	...	...	...	...	...	...
Horwich	...	27	27	71	4	3529	4200	1161	Drainage work	1	...	...	...	...	...	23	11	...	...	...	...	...	...	...	...	...	...	...	50
Huyton-with-Roby	...	122	144	30	153	903	738	...	Pails—Whole cost. Privies—Half-cost	27	...	...	10	...	126	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Ince-in-Makerfield	...	964	1970	76	55	1627	1180	2	Up to £2 per privy for drainage work	29	...	...	...	...	38	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Irlam	...	29	54	88	7	3327	2804	33	Half-cost	...	...	...	...	...	56	3	1	...	...	...	...	...	...	...	...	...	...	...	22
Kearsley	...	42	110	30	68	2312	2208	122	Half-cost	29	...	...	...	...	847	19	...	...	...	...	...	...	...	...	...	...	...	...	4
Kirkham	...	79	202	11	40	840	647	66	...	9	...	...	...	...	56	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Lancaster (B)	...	19	19	22	4730	13242	4384	...	...	1	...	...	...	...	5	45	...	...	...	...	...	...	...	...	...	...	...	...	...
Lathom and Burscough	...	714	1097	30	210	588	345	6	£3 per closet	13	...	...	...	...	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lees	741	96	522	934	85	Half-cost	...	...	...	7	...	...	87	...	...	...	...	...	...	...	...	...	...	...	...	...
Leigh (B)	...	80	91	7	3133	9374	4934	853	One-third cost	80	...	...	...	...	313	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Leyland	...	377	377	408	346	1894	2029	11	Half-cost	54	...	...	6	...	382	92	...	...	...	...	...	...	...	...	...	...	...	...	...
Litherland	...	2	2	...	359	3734	3025	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Littleborough	1381	...	1173	2223	381	Up to £5 per closet	...	...	...	55	...	...	160	...	...	...	...	...	...	...	...	...	...	...	...	7

TABLE 7—continued.

URBAN DISTRICTS.										Privy Middens.		No. of Pail Closets.	No. of Ashpits (excluding middens).	No. of Freshwater Closets.	No. of Movable Ashbins.	No. of Waste Water Closets.	Council's Contribution towards Cost of Conversion.	CONVERSIONS DURING 1928.						TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.									
										No. of Middens.	No. of Privy Closets.							Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	
Little Crosby	...	...	...	...	...	...	...	...	63	63	9	...	172	163	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Little Hulton	...	...	...	...	...	...	...	...	341	682	2	188	1139	971	103	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Little Lever	...	...	...	...	...	...	...	...	79	173	21	52	1064	965	114	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Longridge	...	...	...	...	...	...	...	...	46	46	74	80	727	880	460	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lytham Saint Anne's (B)	...	...	...	...	...	...	...	...	...	17	61	39	10164	6764	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Middleton (B)	...	...	...	...	...	...	...	...	66	66	399	1909	3530	2678	3109	Half-cost	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Milnrow	...	...	...	...	...	...	...	...	85	89	641	19	1224	1411	78	Half-cost up to £4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Morecambe and Heysham (B)	...	...	...	...	...	...	...	...	63	66	14	200	8000	6000	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mossley (B)	...	...	...	...	...	...	...	...	1	1	2835	669	513	617	148	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nelson (B)	...	...	...	...	...	...	...	...	...	...	4	7169	3373	3632	8251	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Newton-in-Makerfield	83	139	2413	97	2178	4251	28	Privies—£4 Pails—£2
Norden	83	85	565	147	531	605	8	£4 per closet
Ormskirk	172	178	30	163	1365	922	7	Half-cost
Orrell	409	784	...	46	868	589	8
Oswaldtwistle	28	28	302	822	786	1675	2434	£4 10s. per closet
Padiham	24	27	1997	2686	1533	Half-cost
Poulton-le-Fylde	7	7	1	192	921	800	5
Preesall	121	145	136	55	210	268

TABLE 7—continued.

URBAN DISTRICTS.	Privy Middens.		No. of Pail Closets.	No. of Ashpits (excluding middens).	No. of Freshwater Closets.	No. of Movable Ashbins.	No. of Waste Water Closets.	Council's Contribution towards Cost of Conversion.	CONVERSIONS DURING 1928.						TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	No. of Middens.	No. of Privy Closets.							Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Pails, &c. to Privy Closets to Fresh W.C.'s.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Prescot	154	151	8	200	1696	1416	...	Pedestal and fittings	96	316	6</

TABLE 7—continued.

CONVERSIONS DURING 1928.										TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.								
URBAN DISTRICTS.										Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Waste W.C.'s. to Fresh W.C.'s.			
Ulverston	6	...	...	...	74	...	...	...	...	...
Upholland	50	...	2	...	183	1	8	...	...	1
Urmston	55	...	...	...	...	5
Walton-le-Dale	4	...	4	...	44	...	31	416	...	8
Wardle	4	...	...	...	17	...	...	16	...	...
Waterloo-with-Seaforth
Westhoughton	150	...	...	...	2310	...	...	...	...	2
Whitefield	26	...	1	...	137	...	3	6	...	16
Whitworth	84	...	...
Widnes (B)	48	...	...	...	383	...	...	...	...	27
Withnell	3	...	...	83	...	...
Worsley	237	...	2	...	874	...	...	...	...	1
Total Urban Districts	2421	2	67	1301	14978	18	180	11026	56	1002
RURAL DISTRICTS.										...	...	...	...	...	...	...	...	...
Barton-upon-Irwell	59	...	1	...	208	...	...	14	...	8
Blackburn	12	11	6	...	46	283	...	...
Burnley	7	2	17	9	4	2	...	...

* Including 732 tank closets.

TABLE 7—continued.

RURAL DISTRICTS.										CONVERSIONS DURING 1928.						TOTAL CONVERSIONS DURING 5 YEARS, 1923-1927.					
	Privy Middens.		No. of Ashpits (excluding middens).	No. of Freshwater Closets.	No. of Movable Ashbins.	No. of Waste Water Closets.	Council's Contribution towards Cost of Conversion.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.	Privy Closets to Pails, &c.	Pail Closets to Fresh W.C.'s.	Pail Closets to Waste W.C.'s.	Privy Closets to Fresh W.C.'s.	Privy Closets to Waste W.C.'s.		
	No. of Middens.	No. of Privy Closets.																			
Bury ...	551	1143	280	746	380	100	...	16	...	...	...	...	81	...	...	...	...	...	...
Chorley ...	908	1233	90	1176	1822	40	...	26	...	12	17	...	94	...	157	69	...	...	2
Clitheroe ...	597	597	...	544	...	318	...	...	...	...	3	...	22	...	7	19	...	...	2
Fylde ...	1695	1699	571	1703	1243	15	...	8	...	...	...	...	91	...	...	...	...	...	1
Garstang ...	361	361	560	681	870	...	...	15	...	6	3	...	62	...	30	3	...	...	...
Lancaster ...	496	916	465	1165	341	16	...	17	...	7	...	...	62	...	18	10	...	...	...
Leigh ...	912	1679	63	728	488	1	Half-cost	...	...	...	...	...	7	...	10	...	...	...	58
Limehurst ...	280	444	384	782	782	516	...	98	...	20	1	...	194	...	93	17	...	...	2
Luncsdales ...	1189	1417	228	575	144	...	...	40	...	3	...	...	11	...	17	10	...	...	...
Preston ...	2573	2573	...	1939	3629	425	...	12	...	33	11	...	16	...	99	23	...	...	...
Sefton ...	304	310	110	235	98	...	...	...	...	...	...	...	5	...	...	...	...	...	...
Ulverston ...	1255	2015	4	1184	220	...	...	45	...	...	...	...	150	...	...	...	...	...	...
Warrington ...	412	412	20	988	1626	15	...	12	...	20	44	...	...	...	117	43	...	...	...
West Lancashire ...	2794	2904	924	1818	1014	18	Half-cost in Aughton	28	...	11	...	...	79	...	84	6	...	...	...
Whiston ...	1578	1148	732	1758	1386	18	Half-cost	46	...	...	8	...	135	...	20	6	...	...	...
Wigan ...	539	823	171	276	198	...	...	...	...	...	...	...	88	...	...	67	...	...	...
Total Rural Districts...	16666	20752	7861	21555	20280	4145	...	422	...	132	100	...	4	1328	702	572	...	...	15
Total Administrative County	29820	41280	62172	299985	281937	88839	...	2843	2	199	1401	...	268	16306	882	11598	56	...	1017		

Sanitary Inspection.—Table 8 gives the number of premises visited, the defects or nuisances discovered, and the results of the action taken. The number of nuisances abated during the year was 59,114; notices served totalled 31,626, and legal proceedings were instituted in 37 cases.

TABLE 8—SANITARY INSPECTIONS DURING 1928.

URBAN DISTRICTS.	No. of premises visited.	DEFECTS OR NUISANCES.		No. OF NOTICES SERVED.		LEGAL PROCEEDINGS.	
		No. discovered.	No. abated.	In-formal.	Statutory.	No.	Result.
Abram	1400	580	505	30	50	...	
Accrington (B)	1894	588	560	373	27	...	
Adlington	64	34	34	34	...	...
Ashton-in-Makerfield	928	968	783	270	152	2	1, Order made with costs.
Ashton-under-Lyne (B)	5521	830	778	298	46	...	1, Withdrawn on payment of costs.
Aspull	281	415	304	180	81	1	Order made with costs.
Atherton	2145	467	451	298	79	...	
Audenshaw	930	809	449	103	20	...	
Bacup (B)	909	592	568	461	76	...	
Barrowford	301	97	97	97	...	...
Billinge-and-Winstanley	240	215	215	215	...	...
Blackrod	334	81	81	18	5	...	
Brierfield	140	102	97	102	36	...	
Carnforth	164	97	97	52	8	...	
Chadderton	1505	1107	1008	1078	55	...	
Chorley (B)	5301	3198	3202	1180	...	...
Church	95	60	60	59	...	...
Clayton-le-Moors	312	198	170	72	3	...	
Clitheroe (B)	1924	225	216	236	...	...
Colne (B)	1188	630	583	264	97	...	
Crompton	2414	545	492	353	54	...	
Croston	50	12	12	3	...	...
Dalton-in-Furness	293	175	164	189	10	...	
Darwen (B)	3235	1555	1064	1520	390	2	Withdrawn on payment of costs.
Denton	2338	559	503	176	18	...	
Droylsden	975	1004	935	288	9	2	Orders made.
Eccles (B)	2363	4738	4519	2363	340	1	Fined £1.
Failsworth	2667	1301	1278	155	281	...	
Farnworth	1745	2048	2320	510	375	7	6 to pay £1 1s. and costs. 1 to pay costs.
Fleetwood	9149	1150	1083	180	22	...	
Formby	119	72	68	72	11	1	Withdrawn on payment of costs.
Fulwood	8	3	3	...	...	...
Golborne	750	167	167	167	1	1	Successful.
Grange-over-Sands	121	5	5	5	...	...
Great Crosby	1915	629	622	273	16	...	
Great Harwood	346	483	483	187	...	...
Haslingden (B)... ..	3170	501	482	391	57	...	

TABLE 8—continued.

URBAN DISTRICTS.	No. of premises visited.	DEFECTS OR NUISANCES.		No. of NOTICES SERVED.		LEGAL PROCEEDINGS.	
		No. discovered.	No. abated.	In-formal.	Statutory.	No.	Result.
Haydock	1878	316	316	215	7	...	
Heywood (B)	2213	207	204	43	8	...	
Hindley	1732	1903	1804	156	259	3	Orders made.
Horwich	2280	714	635	587	54	...	
Huyton-with-Roby	246	110	90	83	34	...	
Ince-in-Makerfield	967	1156	1121	360	18	...	
Irlam	598	937	891	274	32	...	
Kearsley	632	253	212	14	1	...	
Kirkham	653	57	57	49	2	...	
Lancaster (B)	2226	607	591	392	153	...	
Lathom & Burscough	25	37	37	13	1	...	
Lces	174	84	58	84	4	...	
Leigh (B)	1687	1743	1711	738	103	...	
Leyland	130	104	87	124	77	...	
Litherland	736	973	973	495	21	...	
Littleborough	140	580	553	29	...	...
Little Crosby	10	6	6	...	...	...
Little Hulton	605	232	218	80	50	...	
Little Lever	151	102	102	102	2	...	
Longridge	485	36	36	36	...	...
Lytham Saint Anne's (B)	373	484	463	299	...	...
Middleton (B)	1699	519	474	266	41	1	Withdrawn on payment of costs.
Milnrow	1624	522	492	252	6	1	Order made.
Morecambe and Heysham (B)	1783	274	174	65	10	...	
Mossley (B)	229	83	77	83	3	...	
Nelson (B)	5674	113	104	121	11	...	
Newton-in-Makerfield	996	346	330	132	10	6	Withdrawn on payment of costs.
Norden	16	16	12	16	...	...
Ormskirk	35	20	20	20	...	...
Orrell	533	102	102	106	16	...	
Oswaldtwistle	521	253	253	131	19	...	
Padiham	3881	1146	1116	472	39	...	
Poulton-le-Fylde	244	67	61	66	1	...	
Preesall	120	70	52	30	16	1	Adjourned.
Prescot	456	806	306	285	42	...	
Prestwich	1082	573	571	...	84	1	Fined £2.
Radcliffe	2142	236	229	212	93	...	
Rainford	61	63	63	6	31	...	
Ramsbottom	2524	945	978	77	2	...	
Rawtenstall (B)	941	479	485	544	7	...	
Rishton	1372	736	719	139	22	...	

TABLE 8—*continued.*

URBAN DISTRICTS.	No. of premises visited.	DEFECTS OR NUISANCES.		No. of NOTICES SERVED.		LEGAL PROCEEDINGS.	
		No. discovered.	No. abated.	In-formal.	Statutory.	No.	Result.
Royton	1339	217	202	213	38	...	Orders made.
Skelmersdale	204	146	146	71	...	...
Standish-with-Langtree ...	63	7	7	...	...	...
Stretford	13795	4210	4210	291	37	...	
Swinton and Pendlebury ...	6992	1594	1415	1591	40	...	
Thornton Cleveleys	349	205	205	172	33	2	
Tottington ... ..	...	216	146	46	78	...
Trawden	57	7	7	7	...	...
Turton	1976	990	973	140	7	...	
Tyldesley-with-Shakerley ...	1823	304	290	298	20	...	
Ulverston	132	103	99	135	6	...	
Upholland	183	149	119	65	...	...
Urmston	86	108	104	15	71	...	
Walton-le-Dale... ..	1909	353	336	260	93	...	
Wardle	162	22	22	22	...	...
Waterloo-with-Seaforth ...	9025	3703	3432	1061	147	...	
Westhoughton	1262	128	121	45	20	...	
Whitefield	1359	242	205	109	31	...	
Whitworth	169	291	291	38	...	...
Widnes (B)	5458	1686	1686	566	80	...	
Withnell	79	19	19	10	...	...
Worsley	1615	442	439	183	259	...	
Total Urban Districts ...	149145	58882	55715	24795	4558	32	
RURAL DISTRICTS.							
Barton-upon-Irwell	1029	136	99	136	41	...	Orders made with costs.
Blackburn	1402	106	105	84	1	...	
Burnley	302	192	186	121	18	...	
Bury	256	240	180	60	...	...
Chorley	984	190	190	93	7	...	
Clitheroe	786	323	321	32	6	...	
Fylde	416	105	97	105	23	5	
Garstang	1171	156	146	110	5	...	
Lancaster	1201	206	194	153	17	...	
Leigh	597	150	139	95	34	...	
Limehurst	3321	...	241	87	7	...	
Lunesdale	954	111	101	60	...	...
Preston	1541	662	409	22	250	...	
Scfton	774	60	60	55	1	...	

TABLE 8—continued.

RURAL DISTRICTS.	No. of premises visited.	DEFECTS OR NUISANCES.		No. OF NOTICES SERVED.		LEGAL PROCEEDINGS.	
		No. discovered.	No. abated.	In-formal.	Statutory.	No.	Result.
Ulverston	2174	269	240	269	43	...	
Warrington	1794	239	184	26	127	...	
West Lancashire	166	441	394	82	2	...	
Whiston	115	77	68	70	1	...	
Wigan	31	45	45	22	8	...	
Total Rural Districts	19014	3708	3399	1682	591	5	
Total Administrative County	168159	61590	59114	26477	5149	37	

Smoke Abatement.—Table 9 shows the action taken by local authorities to control the nuisance from excessive smoke pollution, and gives the number of smoke observations (2945) taken during the year. Legal proceedings were taken in 6 instances.

In 1927 the observations numbered 3055 and legal proceedings 18.

TABLE 9—SMOKE ABATEMENT.

URBAN DISTRICTS.	No. of Smoke Observations.	Time limit allowed. Minutes per hour.	URBAN DISTRICTS.	No. of Smoke Observations.	Time limit allowed. Minutes per hour.
Abram	2	...	Croston ... ..	...	...
Accrington (B)	12	1 to 7	Dalton-in-Furness ... ..	...	7
Adlington	4	*6	Darwen (B)	54	5 to 7
Ashton-in-Makerfield ... ..	...	8	Denton	47	*2
Ashton-under-Lyne (B)	108	4	Droylsden	425	*2
Aspull ... ..	...	5	Eccles (B)	13	*2
Atherton	29	5	Failsworth	54	*2 to 4
Audenshaw	18	4	Farnworth	70	*2
Bacup (B)	4	10	Flectwood ... ..	...	...
Barrowford	4	10	Formby	3	4
Billinge-and-Winstanley	2	2 to 10	Fulwood ... ..	...	...
Blackrod	2	3	Golborne ... ..	...	2
Brierfield ... ..	...	...	Grange-over-Sands ... ..	...	...
Carnforth ... ..	...	...	Great Crosby... ..	4	...
Chadderton	24	*2 to 4	Great Harwood	4	10
Chorley (B)	5	8	Haslingden (B)	120	*2
Church	6	8	Haydock ... ..	...	...
Clayton-le-Moors	4	10	Heywood (B)	145	*3
Clitheroe (B) ... ..	...	...	Hindley	8	5
Colne (B)	131	5 to 10	Horwich	15	*5
Crompton	84	*3 to 5	Huyton-with-Roby ... ..	...	...

* Minutes per half hour.

TABLE 9—continued.

URBAN DISTRICTS.						No. of Smoke Observa- tions.	Time limit allowed. Minutes per hour.	URBAN DISTRICTS.						No. of Smoke Observa- tions.	Time limit allowed. Minutes per hour.
Incc-in-Makerfield ... ..						...	...	Tottington						28	12
Irlam						42	...	Trawden ... ..						...	...
Kearsley						2	*2	Turton						45	6
Kirkham						10	6	Tyldesley-with-Shakerley						12	*4
Lancaster (B)						5	...	Ulverston ... ..						...	...
Lathom and Burscough ... ..						...	...	Upholland						8	5
Lces						12	4	Urmston ... ..						...	*2
Leigh (B) ... ..						...	8	Walton-le-Dale ... ..						...	...
Leyland ... ..						...	2 to 6	Wardle						34	5
Litherland						26	4	Waterloo-with-Seaforth						7	4
Littleborough						122	*2	Westhoughton						7	4
Little Crosby... ..						...	...	Whitefield						16	3 to 6
Little Hulton						12	*3	Whitworth						18	10
Little Lever						4	*2	Widnes (B) ... ..						...	...
Longridge ... ..						...	...	Withnell						21	6
Lytham Saint Anne's (B)						23	*2½	Worsley						39	7
Middleton (B)						56	*4	Total Urban Districts						2857	...
Milnrow						22	*2	RURAL DISTRICTS.							
Morecambe and Heysham (B)						6	...	Barton-upon-Irwell						5	...
Mossley (B)						40	10	Blackburn						29	...
Nelson (B)						314	*5	Burnley						4	*5
Newton-in-Makerfield ... ..						...	...	Bury						6	5
Norden						10	4	Chorley						17	8
Ormskirk						30	5	Clitheroe ... ..						...	...
Orrell ... ..						...	...	Fylde						7	...
Oswaldtwistle						52	4 to 7	Garstang						4	...
Padiham						12	10	Lancaster ... ..						...	...
Poulton-le-Fylde ... ..						...	...	Leigh						8	6
Preesall ... ..						...	...	Limehurst						4	3
Prescot						41	...	Lunesdale ... ..						...	...
Prestwich						7	4	Preston ... ..						...	...
Radcliffe						73	...	Sefton ... ..						...	...
Rainford						6	4	Ulverston ... ..						...	...
Ramsbottom						21	6	Warrington ... ..						...	*2
Rawtenstall(B)						4	10	West Lancashire ... ..						...	...
Rishton						8	*2	Whiston						4	...
Royton						33	*1 to 4	Wigan ... ..						...	...
Skelmersdale ... ..						...	...	Total Rural Districts						88	...
Standish-with-Langtree ... ..						...	...	Total Administrative County						2945	...
Stretford						25	*2								
Swinton and Pendlebury						198	*2								
Thornton Cleveleys						5	...								

Legal action in 1928 was taken at Ashton-under-Lyne (B), 2 cases, fined £2 16s. 6d. each ; Darwen (B), one, withdrawn on payment of costs ; Middleton (B), one, fined £1 ; Stretford, one, fined £1 ; and Swinton and Pendlebury, one, order to abate obtained.

Premises and Occupations which can be controlled by Byelaws or Regulations.—OFFENSIVE TRADES.—Offensive trades have been established in about 66 districts, the premises numbering 445. These are chiefly tripe boilers, gut scrapers, tanners or leather dressers, fat melters and oil works, soap boilers, &c. New bye-laws were adopted at Heywood (B), Irlam, and Lancaster (B) (1929).

RAG FLOCK ACTS, 1911 AND 1928.—Action under these Acts is reported from Chorley (B), Lytham Saint Anne's (B), Oswaldtwistle, Waterloo-with-Seaforth, etc.

FACTORIES, WORKSHOPS AND WORKPLACES.—Table 10 is a summary of the action taken in the County districts during the year 1928, and shows the number of inspections made, and the defects found :—

TABLE 10—FACTORIES, WORKSHOPS AND WORKPLACES.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

Premises.	Number of		
	Inspections.	Written Notices.	Occupiers prosecuted.
Factories (Including Factory Laundries)	3717	132	...
Workshops (Including Workshop Laundries)	7543	243	...
Workplaces (Other than Outworkers' premises)	1866	42	...
TOTAL	13126	417	...

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars.	Number of Defects.			Number of offences in respect to which prosecutions were instituted.	
	Found.	Remedied.	Referred to H.M. Inspector.		
<i>Nuisances under the Public Health Acts :—*</i>					
Want of cleanliness	297	292	...	...
Want of ventilation	14	12	...	...
Overcrowding ... ..	...	...	...	...
Want of drainage of floors	18	16	...	...
Other nuisances	305	299	2	...	
Sanitary accommodation {	insufficient	51	51	1	...
	unsuitable or defective	191	190	1	...
	not separate for sexes	11	11
<i>Offences under the Factory and Workshop Acts :—</i>					
Illegal occupation of underground bakehouse (s. 101) ...	4	4	...	...
Other Offences	75	75	3	...	
TOTAL	956	950	7	...	

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

COMMON LODGING HOUSES.—The local reports show that there are 79 common lodging houses in 31 districts. Many are described as “fair,” and some as “poor.”

HOUSES LET IN LODGINGS.—In 22 districts houses let in lodgings are reported upon. At Lancaster (B), the bye-laws made in 1926 are now enforced; new bye-laws have been made at Middleton (B) and Stretford; sanction of the Ministry of Health is awaited at Farnworth and Waterloo-with-Seaforth; and bye-laws are in preparation at Chorley (B), Crompton and Darwen (B). Leigh (B) reports bye-laws are needed.

Canal Boats.—Reference to the inspection of canal boats is made in 15 reports. In these districts, 221 boats were inspected, and 6 infringements of the Acts or Orders noted.

Chief Sanitary Requirements of Districts.—The information given under this head in Table 11 is extracted from the reports of local Medical Officers of Health.

TABLE 11—CHIEF SANITARY REQUIREMENTS.

URBAN DISTRICTS.						CHIEF SANITARY REQUIREMENTS.
Abram	...	...	...	...	...	Relaying of sewers—subsidence due to mining operations. Improvement of sewage disposal at Plank Lane.
Accrington (B)	...	...	...	...	...	Abolition of ashpits and waste water closets.
Adlington	...	...	...	...	...	Conversion of privies.
Ashton-in-Makerfield	...	...	...	...	...	Completion of paving of back streets. Substitution of ashbins for ashpits. Conversion of pail closets.
Ashton-under-Lyne (B)	...	...	...	...	...	.....
Aspull	...	...	...	...	...	.....
Atherton	...	...	...	...	...	More houses. Abolition of all open ashpits. Paving of back streets and yards.
Audenshaw	...	...	...	...	...	.....
Bacup (B)	...	...	...	...	...	Conversion of pail closets.
Barrowford	...	...	...	...	...	.....
Billinge-and-Winstanley	...	...	...	...	...	Demolition of property beyond reasonable repair.
Blackrod	...	...	...	...	...	“General.”
Brierfield	...	...	...	...	...	A scheme for sewerage Marsden Heights area. Conversion of pail closets at Reedley Road.
Carnforth	...	...	...	...	...	.....
Chadderton	...	...	...	...	...	Continued extension of sewers, conversion of pail closets, and abolition of open ashpits.
Chorley (B)	...	...	...	...	...	Public mortuary. Public wash-houses and baths.
Church	...	...	...	...	...	Abolition of ashpits and pail closets.
Clayton-le-Moors	...	...	...	...	...	.....
Clitheroe (B)	...	...	...	...	...	.....
Colne (B)	...	...	...	...	...	Acceleration in conversion of pail closets. Substitution of movable receptacles in lieu of ashpits.
Crompton	...	...	...	...	...	Demolition of unfit property. Abolition of smoke nuisance. The sewerage and drainage of Grains Bar area. Conversion of approximately 300 pail closets to fresh water closets.

TABLE 11—*continued*.

URBAN DISTRICTS.						CHIEF SANITARY REQUIREMENTS.
Croston	...	...	...	...	...	Improved sewerage.
Dalton-in-Furness	...	...	...	...	...	New sewage outfall at Lindal-in-Furness. Water supply to ten houses at Tythebarn.
Darwen (B)	...	...	...	...	...	Paving of river bed.
Denton	...	...	...	...	...	Clearing of the district of privy and waste water closets. Extension of sewer in Mill Lane and Beight Bank to facilitate conversions. Reconstruction of sewers of larger capacity in Ruby Street and west end of Victoria Street. Abatement of smoke nuisance. Paving of back passages. Steam disinfecter. Public abattoir. More houses of the working-class type.
Droylsden	...	...	...	...	...	Paving of private streets and passages.
Eccles (B)	...	...	...	...	...	Hospital accommodation for infectious diseases. Houses of the working-class type.
Failsworth	...	...	...	...	...	Paving, metalling and kerbing of private streets and passages.
Farnworth	...	...	...	...	...	Additional houses.
Fleetwood	...	...	...	...	...	New mortuary. New abattoir.
Formby	...	...	...	...	...	Extensions to sewers where possible.
Fulwood	...	...	...	...	...	Re-surfacing and maintenance of roads. Scavenging of outlying portions of the district.
Golborne	...	...	...	...	...	Conversion of privies. Paving of back streets and passages. Constant pressure of water supply.
Grange-over-Sands	...	...	...	...	...	.....
Great Crosby	...	...	...	...	...	Destructor.
Great Harwood	...	...	...	...	...	.....
Haslingden (B)	...	...	...	...	...	Conversion of pail closets. Public abattoir.
Haydock	...	...	...	...	...	Conversion of remaining privies. Paving of back passages and approaches to houses. Sewering of certain areas. Paving of several school playgrounds. Refuse destructor. Bye-laws for offensive trades.
Heywood (B)	...	...	...	...	...	Sewers. Conversion of privies.
Hindley	...	...	...	...	...	Speeding up of conversions. Public abattoir. Refuse destructor.
Horwich	...	...	...	...	...	Abolition of waste-water closets. Public abattoir. Hospital accommodation for encephalitis lethargica.
Huyton-with-Roby	...	...	...	...	...	.....
Ince-in-Makerfield	...	...	...	...	...	New sewer. Abolition of privy middens.
Irlam	...	...	...	...	...	More suitable means of refuse disposal. Paving and draining of private streets and passages. Provision of sanitary conveniences for both sexes in suitable situations on the main road.
Kearsley	...	...	...	...	...	Houses.
Kirkham	...	...	...	...	...	Privy conversions.

TABLE 11—*continued.*

URBAN DISTRICTS.					CHIEF SANITARY REQUIREMENTS.
Lancaster (B)	...	...	...	...	Houses. Smoke abatement.
Lathom and Burscough	...	...	...	...	Conversion of privies. More houses.
Lees	...	...	...	...	.....
Leigh (B)	...	...	...	...	Smoke abatement. Supply of clean milk.
Leyland	...	...	...	...	Improvement of sewage works and disposal of sewage.
Litherland	...	...	...	...	.....
Littleborough	...	...	...	...	Destructor. Public abattoir.
Little Crosby	...	...	...	...	.....
Little Hulton	...	...	...	...	Scheme for sewerage whole township, which has been submitted to Ministry of Health for approval.
Little Lever	...	...	...	...	Conversion of privies.
Longridge	...	...	...	...	.....
Lytham Saint Anne's (B)	...	...	...	...	.....
Middleton (B)	...	...	...	...	Improvement in atmospheric pollution. Relief of overcrowding. Open-air schools. Improved clinic accommodation.
Milnrow	...	...	...	...	Sewerage system for Burnedge district. Conversion of pail closets. Paving of streets and yards.
Morecambe and Heysham (B)	...	...	...	...	Abolition of ashpits and privies. Housing. Completion of infectious diseases hospital.
Mossley (B)	...	...	...	...	Houses.
Nelson (B)	...	...	...	...	.....
Newton-in-Makerfield	...	...	...	...	More houses. Improved filtration of water. Privy and pail conversions. Extension of sewage works. Paving and draining of back streets. Assistant Sanitary Inspector. Mortuary. Prevention of pollution of Millingford Brook and Newton Lake.
Norden	...	...	...	...	Conversions of privies and pails. Improvement of cowsheds. Improvement of sludge disposal arrangements.
Ormskirk	...	...	...	...	Houses. Conversion of privies.
Orrell	...	...	...	...	Infectious diseases hospital. Conversion of privies. Destructor.
Oswaldtwistle	...	...	...	...	Completion of conversions of privies and pails. Houses of the working-class type.
Padiham	...	...	...	...	Houses.
Poulton-le-Fylde	...	...	...	...	.....
Preesall	...	...	...	...	Conversions of privy and pail closets. Abolition of cesspools. Extension of sewers. Reconditioning of old houses.

TABLE 11—*continued.*

URBAN DISTRICTS.						CHIEF SANITARY REQUIREMENTS.
Prescot	...	...	...	...	...	Houses. Conversion of remaining privies. Alteration and enlargement of the sewage disposal works. Enlargement of certain sections of the sewer.
Prestwich	...	...	...	...	...	Conversion of privies and abolition of ash pits. Drainage scheme for part of district.
Radeliffe	...	...	...	...	...	Street paving. Adoption of streets.
Rainford	...	...	...	...	...	Essential that drainage question be tackled at an early date.
Ramsbottom	...	...	...	...	...	Further sewerage and conversion of privies and pail closets. Reconstruction of drains. Provision of dairy accommodation at farms.
Rawtenstall (B)	...	...	...	...	...	.....
Rishton	...	...	...	...	...	Public baths. Scheme for abolishing remaining ash pits.
Royton	...	...	...	...	...	Sewerage and paving of back passages. Conversion of pails.
Skelmersdale	...	...	...	...	...	Privy conversions. Abolition of ash pits.
Standish-with-Langtree	...	...	...	...	...	Privy conversions. Substitution of covered ashbins for open ash pits.
Stretford	...	...	...	...	...	.....
Swinton and Pendlebury	...	...	...	...	...	Houses. Removal of caravans.
Thornton Cleveleys	...	...	...	...	...	New streets. Extension of sewerage scheme.
Tottington	...	...	...	...	...	Further privy conversions.
Trawden	...	...	...	...	...	Improvements at farm premises.
Turton	...	...	...	...	...	Privy and ash pit conversions.
Tyldesley-with-Shakerley	...	...	...	...	...	More houses. Improved method of refuse disposal. Conversion of remaining privies.
Ulverston	...	...	...	...	...	Public abattoir. Sewerage scheme for certain areas.
Upholland	...	...	...	...	...	Privy conversions.
Urmston	...	...	...	...	...	.....
Walton-le-Dale	...	...	...	...	...	Privy conversions. Abolition of ash pits. Draining and construction of back passages and side streets.
Wardle	...	...	...	...	...	Houses. Improvement in condition of streams. Privy conversions.
Waterloo-with-Seaforth	...	...	...	...	...	.....
Westhoughton	...	...	...	...	...	Further closet conversions. More houses. Paving of back yards and streets.
Whitefield	...	...	...	...	...	Privy conversions. Sewers. Paving of back passages. Demolition of unfit property.
Whitworth	...	...	...	...	...	More houses.
Widnes (B)	...	...	...	...	...	More houses.
Withnell	...	...	...	...	...	Portable ashbins. Conversion of pail closets.
Worsley	...	...	...	...	...	Privy conversions. Paving of streets and school yards. Alleviation of overcrowding.

TABLE 11—*continued.*

RURAL DISTRICTS.					CHIEF SANITARY REQUIREMENTS.
Barton-upon-Irwell	...	...	...	...	Additional sewerage. Improved method of refuse disposal.
Blackburn	...	...	...	...	.....
Burnley	...	...	...	...	Sewering of several townships.
Bury	...	...	...	...	Drainage at Prestolce and Outwood.
Chorley	...	...	...	...	Sewerage scheme.
Clitheroe	...	...	...	...	Efficient drainage system for parts of district. Improved water supply to some outlying farms.
Fylde	...	...	...	...	Extension of sewers in three townships. Water supplies to certain areas. Scavenging.
Garstang	...	...	...	...	Improved water supplies to certain areas. Scavenging. Sewerage scheme.
Lancaster	...	...	...	...	Public water supplies to five townships. Sewerage scheme for Silverdale.
Leigh	...	...	...	...	Sewerage scheme for Lowton and Culcheth. Privy conversions.
Limehurst	...	...	...	...	Further privy conversions. Drainage reconstruction. Abolition of ashpits. Housing inspections. Paving of private streets and back passages.
Lunesdale	...	...	...	...	Sewering.
Preston	...	...	...	...	Further extension of water supplies. Sewering. Privy conversions.
Sefton	...	...	...	...	.....
Ulverston	...	...	...	...	Sewerage schemes. Water supply for Gleaston.
Warrington	...	...	...	...	Paving of streets and passages in two townships. Sewering of two townships.
West Lancashire	...	...	...	...	Scavenging scheme for certain areas. Housing scheme.
Whiston	...	...	...	...	Refuse destructor. Privy and pail closet conversions. Houses.
Wigan	...	...	...	...	Sewage disposal. Privy conversions. Substitution of ashbins for ashpits.

HOUSING.

General Housing Conditions.—Particulars have again been obtained from each County district as to :—

- (I) the general housing conditions ;
- (II) the extent of shortage or excess of houses and the measures taken or contemplated to meet any shortage ;
- (III) overcrowding, extent and causes ;
- (IV) unhealthy areas ; and
- (V) the local authority's housing scheme.

GENERAL HOUSING CONDITIONS.—The following notes appear in the district reports :—Chorley (B), old property still gives considerable trouble ; Clitheroe (B), considerable number of back-to-back houses ; Colne (B), 668 back-to-back houses and 511 single houses ; Golborne, much dilapidation ; Haslingden (B), a number of old houses are bad ; Ince-in-Makerfield, certain parts badly congested ; Lancaster (B), about 300 houses in yards and courts, and mostly back-to-back ; Leigh (B), large number of houses kept in a minimum state of suitability ; Mossley (B), a number of back-to-back houses ; Ormskirk, certain slum areas should be abolished when housing is normal ; Padiham, some back-to-back and back-to-earth houses ; Swinton and Pendlebury, a large number of unfit and obstructive houses, and a number of unhealthy areas ; Ulverston, many houses in unsatisfactory condition ; Whitworth, many back-to-back houses.

SHORTAGE OF HOUSES.—In 61 districts, Medical Officers of Health report a shortage of house accommodation. The requirements in certain districts are stated to be :—Abram, 100 ; Ashton-under-Lyne (B), 304 ; Crompton, 200 ; Denton, 150 ; Eccles (B), 800 ; Farnworth, 200 ; Heywood (B), 300 ; Irlam, 347 applicants for Council houses ; Kearsley, 150 ; Lancaster (B), 900

applicants on housing list; Middleton (B), 300; Morecambe and Heysham (B), 100; Newton-in-Makerfield, 223 applicants; Ormskirk, 100-200; Prescot, 600; Radcliffe, 150; Rawtenstall (B), 100-150; Royton, 100; Stretford, 1,200 applicants; Swinton and Pendlebury, 210 for overcrowding, 250 to replace; Walton-le-Dale, 150; Westhoughton, 200; Whitefield, 100; Widnes (B), 400; in nine rural districts a distinct shortage is reported.

OVERCROWDING.—Many references are made in the district reports to overcrowding, for example, Abram and Denton many houses with two families; Audenshaw, overcrowding exists, and there are a number of old houses, if these are closed the question of accommodation for the displaced tenants will have to be faced; Colne (B), ten per cent. of the houses are back-to-back, and 7 per cent. are single houses; Heywood (B), many families live, eat and sleep in one room, for which they pay 10s. to 15s. per week, 300 houses are required; Middleton (B), 75 houses reported in 1928 with an average of 8.28 persons per house; Rawtenstall (B), nearly 2,000 houses of 1-3 bedrooms, many of which are overcrowded; Swinton and Pendlebury, 309 houses overcrowded; Upholland, 5 per cent. of houses overcrowded; Chorley (R) gives a number of examples of overcrowding—two bedroomed cottages, with 15, 10, 9 and 8 occupants, three bedroomed house, 11 occupants, etc.

LOCAL AUTHORITIES' HOUSING SCHEMES.—In 40 districts the local authorities are taking steps to meet the housing shortage; the number of houses erected in 1928 by these authorities with State assistance numbered 1,876.

Houses built in 1928 with State assistance by other bodies or persons numbered 3,130.

The total number of new houses erected in 1928 in the County area was 6,646, bringing the total since the termination of the war to 51,099.

Housing Statistics for the year 1928.—The following statement summarizes the housing work carried out in the Administrative County during the year 1928, and for comparison the preceding year's figures are given :—

	1927.	1928.
UNFIT DWELLING HOUSES—		
No. of houses inspected	38,836	40,440
No. inspected under Regulations	9,985	9,975
No. found unfit for habitation	577	358
No. found not reasonably fit	13,582	14,199
No. rendered fit as result of informal action ...	12,892	14,565
ACTION UNDER STATUTORY POWERS—		
SECTION 3, HOUSING ACT, 1925—		
No. of notices... ..	2,098	1,778
Rendered fit—By Owners	1,337	1,243
By L.A. in default	30	46
No. closed voluntarily	16	106
UNDER PUBLIC HEALTH ACTS—		
No. of notices	6,572	6,362
Defects remedied—By Owners	4,820	4,586
By L.A. in default	33	108
PROCEEDINGS UNDER SECTIONS 11, 14 AND 15, HOUSING ACT, 1925—		
No. of Representations with view to Closing Orders	248	192
No. in respect of which Closing Orders made	197	150
No. of Closing Orders determined	15	48
No. in respect of which Demolition Orders made	46	33
No. demolished after Closing Orders	26	70
No. of houses demolished voluntarily by owners or converted to workshops ...	188	106

NEW HOUSES.—The number of new houses erected in the Administrative County area is stated to be as follows :—

	1927.	1928.
With State assistance under the Housing Acts :		
By Local Authorities	4,363	1,876
By other bodies or persons	4,898	3,130
Total new houses erected	10,170	6,646

Table 12, pages 71 to 76, shows the extent of the housing work carried out in 1928 in each County district.

TABLE 12—HOUSING. SUMMARY OF WORK CARRIED OUT DURING THE YEAR 1928.

NEW HOUSES ERECTED DURING YEAR.			UNFIT DWELLING HOUSES.					ACTION UNDER STATUTORY POWERS IN REGARD TO HOUSING.						No. of houses demol- ished volun- tarily by owners or con- verted to work- shops.						
Total.	With State Assistance.		Total No. in- spect- ed Housing defects.	No. in- spect- ed under Housing Regula- tions.	No. found unfit for habita- tion.	No. found not reason- ably fit for habita- tion.	No. rendered fit as result of informal action.	Under Section 3, Housing Act, 1925.			Under the Public Health Acts.		Proceedings under Sections 11, 14 and 15 of Housing Act, 1925.							
	By L.A.	By other bodies or persons.						No. in respect of which notices served requiring repairs.	By owners, default of owners.	By Local Author- ity in default of owners.	No. in which defects remedied.	No. in respect of which notices served to remedy defects.	By owners, default of owners.		No. of repre- sentations with a view to making Closing Orders.	No. in respect of which Closing Orders made.	No. of Closing Orders deter- mined, of which dwelling- houses have been rendered fit.	No. in respect of which Demoli- tion Orders made.	No. demol- ished in pursu- ance of Demoli- tion Orders.	
URBAN DISTRICTS.																				
Abram	50	...	600	6	6	300	300	6	5	...	250	230	...	1	...	...	...
Accrington (B)	46	...	412	68	...	352	316	...	...	...	...	...	...	...	...	...	...
Adlington	4	...	64	64	...	34	34	...	...	...	...	...	...	...	...	...	...
Ashton-in-Makerfield	26	...	774	268	1	258	159	...	...	1	93	74	...	1	...	1	...
Ashton-under-Lyne (B)	153	...	844	352	25	45	510	...	...	...	235	235	...	...	...	...	10
Aspull	153	20	2	148	107	...	...	...	31	23	2	2	...	...	...
Atherton	64	...	581	97	1	327	248	5	5	...	61	61	...	1	...	...	6
Audenshaw	44	...	159	74	13	61	87	13	2	...	...	...	13	...	...	...	1
Bacup (B)	95	...	35	35	...	...	...	...	...	...	16	14	...	...	...	...	2
Barrowford	4	...	81	22	...	...	...	...	...	...	24	24	...	...	...	...	...
Billinge-and-Winstanley	11	...	240	25	...	215	215	...	...	...	...	...	...	...	...	...	...
Blackrod	62	23	3	23	22	...	...	...	...	...	...	...	...	...	...
Brierfield	35	...	259	259	...	41	12	41	12	...	5	5	...	...	...	...	...
Carnforth	6	...	164	67	...	...	97	...	...	...	94	65	29	...	...	...	...
Chadderton	77	...	1250	112	1	1078	1008	...	...	...	1078	53	2	1	...	1	...
Chorley (B)	177	...	1352	172	...	363	268	63	63	...	...	...	...	...	...	...	1
Church	22	...	67	7	...	6	6	...	...	...	...	...	...	...	...	...	...
Clayton-le-Moors	5	...	131	44	1	42	40	...	...	...	3	3	...	...	...	...	1
Clitheroe (B)	45	...	156	...	...	46	35	...	...	...	...	...	...	...	...	...	...

TABLE 12—continued.

URBAN DISTRICTS.	NEW HOUSES ERECTED DURING YEAR.			UNFIT DWELLING HOUSES.				ACTION UNDER STATUTORY POWERS IN REGARD TO HOUSING.								No. of houses demol- ished volun- tarily by owners or con- verted to work- shops.							
	Total.	With State Assistance.		Total No. in- spect- ed for Housing defects.	No. in- spect- ed under Housing Regula- tions.	No. found unfit for habita- tion.	No. found reason- ably fit for habita- tion.	No. rendered fit as result of informal action.	Under Section 3, Housing Act, 1925.				Under the Public Health Acts.		Proceedings under Sections 11, 14 and 15 of Housing Act, 1925.								
		By L.A.	By other bodies or persons.						No. in which defects remedied.	No. in respect of which notices served to remedy defects.	By owners.	By Local Author- ity in default of owners.	No. of repre- sentations with a view to making Closing Orders.	No. in respect of which Closing Orders made.	No. of Closing Orders deter- mined, dwelling being rendered fit.		No. in demol- ished in pursu- ance of Demoli- tion Orders.						
Colne (B)	104	74	17	515	355	1	76	41	35	19	2	1	66	46	...	1	...	1	...	...
Crompton	61	48	13	330	60	16	75	63	63	3	3	...	22	21	...	1	1	...	...	3
Croston	3	...	2	15	10	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
Dalton-in-Furness	1	...	...	819	293	1	125	65	3	3	...	1	128	65	...	1	...	...	...	...
Darwen (B)	77	12	21	2711	53	17	37	20	...	...	...	...	28	11	...	1	1	...	...	2
Denton	63	...	58	241	58	1	57	31	...	...	...	2	...	...	...	...	...	...	...	...
Droylsden	14	...	4	406	...	2	91	351	4	1	1	2	93	76	...	2	...	...	...	4
Eccles (B)	124	78	29	2363	208	...	208	1905	76	77	...	77	135	184	43	...	...	...	...	...
Failsworth	39	8	22	516	103	2	376	339	40	40	...	...	...	...	...	2	2	...	...	5
Farnworth	69	56	10	953	290	6	300	123	242	242	14	...	860	1046	...	6	12	2	10	...
Fleetwood	143	14	80	252	97	...	74	94	...	...	...	...	22	7	...	...	...	...	...	...
Formby	38	...	19	22	22	...	18	13	5	3	2	...	2	2	...	...	...	...	...	...
Fulwood	51	...	...	120	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Golborne	17	16	...	71	24	...	95	95	...	...	...	...	1	1	...	...	...	...	...	...
Grange-over-Sands	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Crosby	247	...	38	381	31	1	36	36	...	...	...	...	17	17	...	1	1	...	...	19
Great Harwood	12	...	8	148	92	...	14	14	...	...	...	...	...	...	...	...	...	...	...	...
Haslingden (B)	24	16	3	16	...	16	...	...	2	...	...	...	2	...	...	16	16	...	...	...
Haydock	2	...	2	329	158	...	264	218	17	17	...	...	29	29	...	...	...	...	...	...
Heywood (B)	65	16	46	30	19	4	26	26	...	...	...	1	...	...	...	...	...	...	...	5
Hindley	1732	165	3	133	55	...	...	...	...	558	216	17	3	3	...	3	1
Horwich	14	...	14	231	33	...	179	131	19	19	...	...	29	29	...	...	...	...	...	...

URBAN DISTRICTS.	NEW HOUSES ERECTED DURING YEAR.			UNFIT DWELLING HOUSES.				ACTION UNDER STATUTORY POWERS IN REGARD TO HOUSING.						No. of houses demol- ished volun- tarily by owners or con- verted to work- shops.						
	Total.	With State Assistance.		Total No. in- spect- ed for Housing defects.	No. in- spect- ed under Housing Regula- tions.	No. found unfit for habi- tation.	No. found reason- ably fit for habi- tation.	No. rendered fit as result of informal action.	Under Section 3, Housing Act, 1925.			Under the Public Health Acts.			Proceedings under Sections 11, 14 and 15 of Housing Act, 1925.					
		By L.A.	By other bodies or persons.						No. in respect of which notices requiring repairs.	No. rendered fit.		No. in respect of which notices served to remedy defects.	No. in which defects remedied.		No. of repre- senta- tions with a view to making Closing Orders.	No. in respect of which Closing Orders made.	No. of Closing Orders deter- mined dwelling have been rendered fit.	No. in respect of which Demoli- tion Orders made.	No. demol- ished in pursu- ance of Demoli- tion Orders.	
										By Local Author- ity in default of owners.	By Local Author- ity in default of owners.		By owners.							By Local Author- ity in default of owners.
Huyton-with-Roby	18	...	1	758	512	...	193	139	34	...	...	110	90	...	...	...	...	...	...	...
Ince-in-Makerfield	33	...	3	495	79	9	486	...	23	23	...	472	453	...	...	9	9	...	...	...
Irlam	11	...	9	98	56	3	63	48	14	12	...	3	12	12	...	3	3	...	...	6
Kearsley	12	...	7	179	69	10	169	168	...	...	...	1	1	...	...	10	10	15	...	1
Kirkham	30	...	27	29	25	...	...	...	25	...	...	4	4	...	...	...	...	...	...	...
Lancaster (B)	114	...	...	255	75	24	231	114	120	116	...	...	...	...	24	1	3	...	20	2
Lathom and Burscough	72	...	16	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lees	11	...	11	124	28	...	19	11	12	...	...	38	...	...	...	...	...	...	...	...
Leigh (B)	95	...	37	949	446	...	697	561	...	...	...	156	135	...	...	...	...	...	...	...
Leyland	88	...	84	108	98	...	10	...	10	10	...	...	...	...	...	...	...	...	...	...
Litherland	39	...	37	696	25	...	685	661	...	...	...	24	24	...	...	...	...	...	...	...
Littleborough	1	...	...	118	75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Little Crosby	2	...	...	10	15	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Little Hulton	82	...	7	39	...	...	14	220	1	...	...	91	64	...	...	...	...	...	...	...
Little Lever	28	...	6	49	49	10	39	37	3	1	2	7	...	...	10	10	...	4	2	1
Longridge	...	...	...	26	26	...	8	8	...	...	...	...	...	...	...	...	...	...	...	...
Lytham Saint Anne's (B)	93	...	2	243	121	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Middleton (B)	98	...	35	194	127	...	90	82	6	6	...	67	29	8	...	...	...	...	...	...
Milnrow	...	...	...	66	23	2	6	20	1	...	...	2	2	...	...	...	...	...	...	2
Morecambe and Heysham (B)	276	...	186	168	102	8	30	30	...	...	...	10	10	...	...	...	...	...	...	...
Mossley (B)	37	...	...	75	49	...	45	18	...	...	...	...	...	...	...	...	...	...	...	...
Nelson (B)	172	...	78	1889	117	...	82	72	2	2	...	8	8	...	...	...	...	...	...	...

TABLE 12—continued.

URBAN DISTRICTS.	NEW HOUSES ERECTED DURING YEAR.			UNFIT DWELLING HOUSES.				ACTION UNDER STATUTORY POWERS IN REGARD TO HOUSING.				No. of houses demol- ished volun- tarily by owners or con- verted to work- shops.						
	Total.	With State Assistance.		Total No. in- spected for Housing defects.	No. in- spected under Housing Regula- tions.	No. found unfit for habita- tion.	No. found reason- ably fit for habita- tion.	No. rendered fit as result of informal action.	Under Section 3, Housing Act, 1925.		Under the Public Health Acts.		Proceedings under Sections 11, 14 and 15 of Housing Act, 1925.					
		By L.A.	By other bodies or persons.						No. rendered fit.		No. in which defects remedied.		No. of repre- sentations with a view to making Closing Orders.	No. in respect of which Closing Orders made.	No. of Closing Orders deter- mined, dwelling having been rendered fit.	No. in respect of which Demoli- tion Orders made.	No. demol- ished in pursu- ance of Demoli- tion Orders.	
									By Local Author- ity in default of owners.	By owners.								No. in which defects remedied. By Local Author- ity in default of owners.
Newton-in-Makerfield ...	202	137	58	51	51	1	23	21	13	13	...	...	...	1	...	...	...	1
Norden ...	15	...	15	81	...	...	...	...	...	...	...	81	...	...	...	...	...	...
Ormskirk ...	4	...	1	35	35	...	20	20	...	...	...	20	...	...	...	...	...	...
Orrell ...	4	...	2	111	25	27	84	...	16	16	...	...	...	...	...	...	...	...
Oswaldtwistle ...	7	...	7	521	6	19	225	215	41	12	...	174	...	...	...	...	...	...
Padiham ...	4	...	...	704	...	...	126	116	10	9	1	...	...	...	...	...	...	...
Poulton-le-Fylde ...	17	...	2	42	37	1	17	16	...	...	...	1	...	...	...	...	...	1
Preesall ...	8	...	8	46	37	7	29	7	23	10	1	2	...	9	7	4	1	...
Prescot ...	8	...	8	583	468	6	38	8	68	68	...	74	...	...	...	...	...	...
Prestwich ...	176	73	40	464	3	...	43	131	12	12	...	72	68	...	...	...	...	...
Radcliffe ...	73	50	17	74	68	22	46	40	6	6	...	14	...	...	...	...	29	2
Rainford ...	11	...	11	61	61	...	31	6	31	31	...	...	...	...	...	...	...	...
Ramsbottom ...	39	...	29	74	46	...	33	57	...	...	...	8	...	...	...	...	...	...
Rawtenstall (B) ...	29	...	16	48	19	3	45	21	...	...	...	...	...	...	...	...	...	2
Rishton ...	12	...	12	33	20	...	12	10	2	2	...	20	19	...	...	...	...	...
Royton ...	30	...	5	17	...	...	15	15	...	...	...	...	...	...	...	...	...	...
Skelmersdale ...	2	...	...	58	58	...	...	58	...	...	...	...	...	...	...	...	...	...
Standish-with-Langtree ...	27	...	16	32	10	...	4	3	...	...	...	...	...	...	...	...	...	...
Stretford ...	396	...	348	122	2	2	122	119	15	15	...	4	4	1	1	...	...	...
Swinton and Pendlebury ...	292	182	110	715	398	8	319	388	118	92	20	14	8	8	3	...	...	2
Thornton Cleveleys ...	185	...	126	180	169	...	...	39	2	2	...	3	3	...	...	...	...	11
Tottington ...	2	...	2	3	3	3	...	...	...	...	...	2	...	...	...	...	...	1
Trawden ...	16	15	...	57	38	...	7	7	...	...	...	...	...	...	...	...	...	...

RURAL DISTRICTS.

TABLE 12—continued.

NEW HOUSES ERECTED DURING YEAR.				UNFIT DWELLING HOUSES				ACTION UNDER STATUTORY POWERS IN REGARD TO HOUSING.								No. of houses demol- ished volun- tarily by owners or con- verted to work- shops.												
Total.		With State Assistance.		Total No. in- spected for Housing defects.	No. in- spected under Housing Regula- tions.	No. found unfit for habi- tation.	No. found not rea- sonably fit for habi- tation.	No. rendered fit as result of informal action.	Under Section 3, Housing Act, 1925.			Public Health Acts.		Proceedings under Sections 11, 14 and 15 of Housing Act, 1925.														
		By L.A.	By other bodies or persons.						No. in respect of which notices requiring repairs.	By owners.	By Local Author- ity in default of owners.	No. closed volun- tarily.	No. in which defects remedied.	No. in respect of which notices served to remedy defects.	By owners.		By Local Author- ity in default of owners.	No. of repre- sentations with a view to making Closing Orders.	No. in respect of which Closing Orders made.	No. of Closing Orders deter- mined, of which dwelling have been rendered fit.	No. in respect of which Demoli- tion Orders made.	No. demol- ished in pursu- ance of Demoli- tion Orders.						
RURAL DISTRICTS.																												
Chorley	47	...	35	290	150	1	102	102	1	...	...	...	10	10	1	...	...	...	1	1	...	...	...	...	...
Clitheroe	9	...	6	172	91	1	16	16	1	...	...	...	4	...	...	...	...	...	1	1	...	...	...	...	...
Fylde	84	...	...	316	39	2	11	11	...	3	3	...	69	67	...	...	...	...	2	2	...	...	...	...	...
Garstang	43	...	7	76	76	11	65	39	8	6	...	...	88	76	...	...	...	...	8	4	1	...	...	...	4
Lancaster	14	...	...	723	102	...	34	24	4	4	...	...	6	60	...	...	...	...	...	...	...	...	...	...	...
Leigh	54	40	14	597	73	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Limchurst	3	...	...	39	12	6	33	156	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lunesdale	5	...	2	244	35	2	33	28	25	...	...	...	8	...	...	...	...	...	19	...	...	...	...	...	...
Preston	272	...	132	307	215	6	169	...	169	109	...	...	81	81	...	...	...	...	6	6	2	...	...	...	...
Sefton	3	...	...	33	33	5	28	10	...	...	...	...	10	10	...	...	...	...	5	5	...	...	...	...	2
Ulverston	16	...	...	148	78	4	70	8	140	10	...	...	9	9	...	...	...	...	4	4	...	...	...	...	...
Warrington	34	...	34	128	81	1	...	17	63	45	...	...	102	80	...	...	...	...	1	1	...	...	...	...	1
West Lancashire	155	...	90	162	111	3	100	94	4	...	...	...	...	...	...	...	...	...	3	3	2	9	...	7	...
Whiston	107	...	79	89	30	5	40	30	...	...	...	...	14	12	...	...	...	...	1	1	...	1	1	3	...
Wigan	14	...	9	31	9	...	8	22	8	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rural Districts...	1172	40	665	3768	1326	67	836	648	447	185	...	6	469	411	...	...	...	...	57	34	6	10	8	10	...
Urban Districts	5474	1836	2465	36672	8649	291	13363	13917	1331	1058	46	100	5893	4175	108	...	...	...	135	116	42	23	62	96	...
Administrative County	6646	1876	3130	40440	9975	358	14199	14565	1778	1243	46	106	6362	4586	108	...	...	...	192	150	48	33	70	106	...

FINANCIAL ASSISTANCE FOR PURPOSES OF INCREASING HOUSING ACCOMMODATION.—In 1928, loans by Local Authorities amounting to £207,301 have been granted in respect of 563 houses, and subsidies of £195,939 were paid in respect of 3,063 houses. Last year's subsidies amounted to £401,531 in respect of 4,877 houses.

Table 13 shows the amount of the financial assistance granted in each of the County districts :—

TABLE 13—HOUSING, FINANCIAL ASSISTANCE.

URBAN DISTRICTS.				FINANCIAL ASSISTANCE FOR PURPOSES OF INCREASING HOUSING ACCOMMODATION.				URBAN DISTRICTS.				FINANCIAL ASSISTANCE FOR PURPOSES OF INCREASING HOUSING ACCOMMODATION.			
				Advances made during 1928.								Advances made during 1928.			
				By Loans.		By Subsidy.						By Loans.		By Subsidy.	
				No.	Amount.	No.	Amount.					No.	Amount.	No.	Amount.
					£		£						£		£
Abram								Heywood (B)						46	2225
Accrington (B)						24	1560	Hindley							
Adlington						4	200	Horwich						12	600
Ashton-in-Makerfield ...				6	3200	15	750	Huyton-with-Roby						1	75
Ashton-under-Lyne (B) ...						73	3650	Ince-in-Makerfield						2	80
Aspull								Irlam						9	452
Atherton						28	1400	Kearsley						5	375
Audenshaw						25	1250	Kirkham						19	950
Bacup (B)						2	200	Lancaster (B)							
Barrowford								Lathom and Burscough ...						16	816
Billinge-and-Winstanley ...						10	520	Lees						11	770
Blackrod								Leigh (B)						37	1850
Brierfield						35	1750	Leyland				38	15215	84	4200
Carnforth								Litherland						37	1850
Chadderton				37	14522	35	2450	Littleborough							
Chorley (B)				34	11860	132	9210	Little Crosby							
Church						22	2200	Little Hulton				3	900	3	225
Clayton-le-Moors						5	325	Little Lever				10	2900	5	250
Clitheroe (B)						11	550	Longridge							
Colne (B)						17	850	Lytham Saint Anne's (B) ...						2	100
Crompton						16	1200	Middleton (B)						37	1844
Croston						2	100	Milnrow							
Dalton-in-Furness								Morecambe & Heysham (B)				8	3485	186	9300
Darwen (B)						63	2316	Mossley (B)							
Denton						58	2900	Nelson (B)						68	3400
Droylsden						7	350	Newton-in-Makerfield ...				44	15139	45	2925
Eccles (B)				2	3670	17	900	Norden							
Failsworth						22	1720	Ormskirk						1	50
Farnworth				5	1849	10	745	Orrell						2	100
Fleetwood				12	5085	57	2850	Oswaldtwistle				10	3175	8	520
Formby						19	950	Padiham							
Fulwood				2	1525			Poulton-le-Fylde						2	100
Golborne								Preesall				2	1075	6	330
Grange-over-Sands								Prescot				5	1950	8	520
Great Crosby						38	1900	Prestwich						113	36650
Great Harwood						8	550	Radcliffe				6	2365	14	924
Haslingden (B)						3	210	Rainford						11	825
Haydock				1	400	2	132	Ramsbottom						29	2030

TABLE 13—continued.

URBAN DISTRICTS.				FINANCIAL ASSISTANCE FOR PURPOSES OF INCREASING HOUSING ACCOMMODATION.				RURAL DISTRICTS.				FINANCIAL ASSISTANCE FOR PURPOSES OF INCREASING HOUSING ACCOMMODATION.			
				Advances made during 1928.								Advances made during 1928.			
				By Loans.		By Subsidy.						By Loans.		By Subsidy.	
				No.	Amount.	No.	Amount.					No.	Amount.	No.	Amount.
		£		£			£		£						
Rawtenstall (B) ... ..	...	...	19	1375	Barton-upon-Irwell ...	75	27155	191	9550				
Rishton ... ..	...	...	10	600	Blackburn ... ..	...	...	30	1506		
Royton ... ..	...	...	5	350	Burnley ... ..	...	...	26	1560		
Skelmersdale ... ..	...	...	...	...	Bury ... ..	...	...	...	...		
Standish-with-Langtree ...	...	...	16	1200	Chorley ... ..	...	...	35	2000		
Stretford	138	52670	328	16400	Clitheroe ... ..	...	...	6	300				
Swinton & Pendlebury ...	8	1396	103	5339	Fylde ... ..	...	...	...	...		
Thornton Cleveleys ...	1	810	126	6350	Garstang ... ..	...	...	7	350				
Tottington ... ..	...	...	1	50	Lancaster ... ..	...	...	...	...		
Trawden ... ..	...	...	...	...	Leigh ... ..	...	...	4	265
Turton ... ..	...	...	11	825	Limehurst ... ..	...	...	...	...		
Tyldesley-with-Shakerley ...	...	...	2	135	Lunesdale ... ..	...	...	...	...		
Ulverston ... ..	...	...	6	420	Preston ... ..	...	...	132	6600		
Upholland	1	100	2	100	Sefton ... ..	...	...	...	...		
Urmston ... ..	...	...	22	1100	Ulverston ... ..	...	...	...	...		
Walton-le-Dale	85	25680	56	3190	Warrington ... ..	...	...	29	1050				
Wardle ... ..	...	...	...	...	West Lancashire ... ..	...	...	66	3300
Waterloo-with-Seaforth ...	5	2100	8	400	Whiston ... ..	...	...	79	4835				
Westhoughton	16	6025	33	2215	Wigan ... ..	...	...	9	450				
Whitefield	9	3050	71	3575											
Whitworth ... ..	...	...	3	150									
Widnes (B) ... ..	...	...	27	1325									
Withnell ... ..	...	...	...	...							
Worsley ... ..	...	...	21	1050									
					TOTALS—										
					Rural Districts ...	75	27155	614	31766						
					Urban Districts ...	488	180146	2449	164173						
Urban Districts... ..	488	180146	2449	164173	Administrative County	563	207301	3063	195939						

The Housing (Rural Workers) Act, 1926.—The County Council has delegated its powers and duties under this Act to the following 40 districts :—

Non-County Boroughs (17) :—

Accrington	Darwen	Lancaster	Morecambe & Heysham
Bacup	Eccles	Leigh	Mossley
Chorley	Haslingden	Lytham St. Anne's	Nelson
Clitheroe	Heywood	Middleton	Rawtenstall
Colne			

Urban Districts (20) :—

Farnworth	Newton-in-Makerfield	Tyldesley-with-Shakerley
Horwich	Preesall	Upholland
Lathom and Burscough	Ramsbottom	Wardle
Litherland	Rishton	Westhoughton
Littleborough	Stretford	Whitworth
Little Hulton	Swinton and Pendlebury	Worsley
Milnrow	Trawden	

Rural Districts (3) :—

Bury	Clitheroe	Whiston
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The following table shows the number of applications received up to 31st July, 1929, by the County Council for grants under the Housing (Rural Workers) Act, in respect of the area under their jurisdiction.

Purpose for which assistance required.	No. of dwellings in respect of which applications for grants have been—			Assistance promised by the Council.		Assistance given by the Council.		No. of dwellings.	
	Made to the Council.	Refused by the Council.	Withdrawn by applicants.	Total Amount of grants promised	No. of dwellings concerned	Total Amount of grants paid	No. of dwellings concerned	On which work has been finished	On which work has been commenced and not finished
				£		£			
Conversion into dwellings of buildings not previously used as dwellings... ..	5	...	2	300	3	100	1	1	1
Improvement of existing dwellings	10	...	2	736	8	636	7	7	1
Total	15	...	4	1036	11	736	8	8	2

No applications have been received for loans.

Housing Act, 1925.—An application was received for an advance on Mortgage of £500, being 75 per cent. of the cost of the building of a house on one of the County Council Small Holdings.

Originally the applicant was in partnership with another man on one of the County Council Small Holdings, but dissolved partnership, with the result that the applicant had to find a house.

No provision is made in the Small Holdings and Allotments Act, 1926, whereby a County Council may advance further money to a person who has purchased land with the aid of a loan under section 13 of that Act, to enable him to equip that land, so the case was referred to the Public Health and Housing Committee for action under Section 92 of the Housing Act, 1925. The application was agreed to, an annual rate of interest of $5\frac{1}{4}$ per cent. being charged, the loan to be repaid by equal half-yearly payments spread over a period of 20 years.

Joint Town Planning Committees.—The following Joint Town Planning Committees have been formed :—

The Manchester and District Joint Town Planning Advisory Committee, as formerly constituted, comprised the following authorities :—

Lancashire ...	7	County Boroughs	Cheshire ...	4	Boroughs
	9	Boroughs		18	Urban Districts.
	40	Urban Districts		5	Rural Districts
	6	Rural Districts			
Derbyshire ...	2	Boroughs	Yorkshire ...	2	Urban Districts
	3	Rural Districts.			

The Advisory Committee has developed a scheme of Decentralised Area Joint Town Planning Committees, and to the 31st December, 1928, thirteen such Committees had been established and were functioning in respect of the following districts :—

1. Manchester and District :—

Manchester C.B.	Denton, U.D.	Stretford U.D.
Salford C.B.	Droylsden U.D.	Swinton & Pendlebury U.D.
Eccles B.	Failsworth U.D.	Urmston U.D.
Middleton B.	Irlam U.D.	Worsley U.D.
Audenshaw U.D.	Prestwich U.D.	Barton-upon-Irwell R.D.

2. Warrington and District :—

Warrington C.B.	Newton-in-Makerfield U.D.	Warrington R.D.
Haydock U.D.	Runcorn R.D. (part)	

3. Leigh and District :—

Leigh B.	Golborne U.D.	Leigh R.D.
Atherton U.D.	Tyldesley-with-Shakerley U.D.	

4. Wigan and District :—

Wigan C.B.	Blackrod U.D.	Orrell U.D.
Abram U.D.	Hindley U.D.	Standish-with-Langtree U.D.
Aspull U.D.	Ince-in-Makerfield U.D.	

5. Chorley and District :—

Chorley B.	Croston U.D.	Chorley R.D.
Adlington U.D.	Withnell U.D.	

6. Bolton and District :—
 Bolton C.B. Kearsley U.D. Turton U.D.
 Farnworth U.D. Little Hulton U.D. Westhoughton U.D.
 Horwich U.D. Little Lever U.D.
7. Rossendale :—
 Bacup B. Haslingden B. Rawtenstall B.
8. Bury and District :—
 Bury C.B. Radcliffe U.D. Whitefield U.D.
 Heywood B. Ramsbottom U.D. Bury R.D.
9. Rochdale and District :—
 Rochdale C.B. Norden U.D. Whitworth U.D.
 Littleborough U.D. Wardle U.D.
10. Oldham and District :—
 Oldham C.B. Crompton U.D. Royton U.D.
 Chadderton U.D.
11. North Derbyshire :—
 Buxton B. Chapel-en-le-Frith R.D. Hayfield R.D.
 New Mills U.D.
12. East Cheshire :—
 Stockport C.B. Bredbury & Romiley U.D. Marple U.D.
 Hyde B. Compstall U.D. Disley R.D.
 Macclesfield B. Hazel Grove & Bramhall U.D.
13. North Cheshire :—
 Bowden U.D. Handforth U.D. Wimslow U.D.
 Cheadle and Gatley U.D. Lymm U.D. Bucklow R.D.

The Lancaster and District Joint Town Planning Advisory Committee :—

Lancaster Borough.
 Lancaster Rural District.
 Lunesdale Rural District.
 The Borough of Morecambe and Heysham, and the Urban District of Carnforth
 are to be invited to join.

Regional Town Planning Advisory Committee for South West Lancashire :—

4 County Boroughs.
 1 Borough.
 9 Urban Districts.
 3 Rural Districts.

North East Lancashire Joint Town Planning Advisory Committee :—

Lancashire :	Yorkshire :
2 County Boroughs.	2 Urban Districts.
5 Boroughs.	2 Rural Districts (parts of).
7 Urban Districts.	
4 Rural Districts.	

This Committee has formed two groups—a Blackburn group and a Burnley group,
 each of which will function as a Statutory Committee.

The Preston and District Joint Town Planning Committee :—

1 County Borough.
 3 Urban Districts.
 1 Rural District (part).

The Fylde Region Joint Town Planning Advisory Committee :—

1 County Borough.
 1 Borough.
 4 Urban Districts.
 2 Rural Districts.

TOWN PLANNING SCHEMES.—Under Section 3 of the Town Planning Act, 1925, the Council of every borough or other urban district containing a population, according to the 1921 census, of more than 20,000, were required to prepare and submit to the Minister of Health a town planning scheme in respect of all the land within the borough or urban district in respect of which a town planning scheme may be made under the Act, before 1st January, 1929. By the Local Government Act, 1929, this date has been extended to 1st January, 1934, and it may be further extended to 31st December, 1938.

There are 17 boroughs and 9 urban districts in the County area within the above designation, and all the boroughs and 8 of the urban districts have taken some action in the preparation of town planning schemes. Some of these areas come within the schemes in process of formation by the Regional Committees set out above.

In addition, 25 urban districts in the County, with a population of less than twenty thousand at the last census, have also taken some action under the Town Planning Act, either singly or as constituent authorities in the Regional Town Planning schemes. A number of rural districts are also represented on the Regional Committees.

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply.—The local reports contain many references to the action taken during the year to improve the milk supply. Under the Milk and Dairies Order, 1926, improvements have been effected at numerous farm premises. In 40 districts it is reported 372 notices were served during 1928, requiring additional window area in cowsheds, 196 of which have been complied with. In 34 districts, owners have voluntarily undertaken works of improvement, including new drainage, remodelling of cowsheds, concreting floors and cementing walls, additional windows and improved ventilation, &c.

The Medical Officer of Health, Fulwood, reports that most of the milk-producing farmers in the district now recognise that it is better for themselves, better for their milking stock, and better for the public, that milk should be produced under healthy and clean conditions, both as regards the keeping and housing of the cow, the gathering of the milk, and personal scrupulous cleanliness of milker and milk utensils. It is no unreasonable demand that the public consumer should have clean and pure milk. A public demand for clean milk would stimulate the farmer to meet this requirement. Rawtenstall (B) report states that the improved methods of producing and handling milk are not being adopted as quickly as desirable; it has been found, however, that once a farmer has adopted up-to-date methods he rarely relapses into the slipshod. The Burnley (R), Chorley (R), and other reports mention that the milk-producing farms have shown a great improvement in cleanliness during the year.

The County Sanitary Officers have made a large number of inspections of farms and farm premises, and given advice in regard to remodelling, improvements in methods of milk producing, cleanliness, &c. The quarterly reports to the County Public Health Committee contain a brief digest of the work accomplished as a result of these visits. Lectures on clean milk were also given in a few districts.

DAIRIES, COWSHEDS AND MILKSHOPS.—The number of cowkeepers and dairymen or purveyors of milk in each district is shown in Table 14:—

TABLE 14—DAIRIES, COWSHEDS AND MILKSHOPS.

URBAN DISTRICTS.	COWKEEPERS.		DAIRYMEN OR PURVEYORS OF MILK (other than cowkeepers).	Arrangements for Veterinary Inspection of Dairy Cows.
	Number.	Number of Inspections.	Number.	
Abram	17	30	3	...
Aeerington (B)	40	80	87	Yes.
Adlington	16	34	18	...
Ashton-in-Makerfield	42	79	7	When required.
Ashton-under-Lyne (B)	7	75	101	Yes.
Aspull	14	61	9	When required.
Atherton	20	92	17	Yes.
Audenshaw	10	37	16	...
Bacup (B)	88	127	6	When required.
Barrowford	25	71	3	...
Billinge-and-Winstanley	38	80	5	...
Blackrod	31	21	1	...
Brierfield	7	8	27	...
Carnforth	16	32	17	...
Chadderton	40	40	82	When required.
Chorley (B)	27	84	23	Yes.
Church	4	12	10	...

TABLE 14—continued.

URBAN DISTRICTS.	COWKEEPERS.		DAIRYMEN OR PURVEYORS OF MILK. (other than cowkeepers).	Arrangements for Veterinary Inspection of Dairy Cows.
	Number.	Number of Inspections.	Number.	
Clayton-le-Moors	9	36	3	...
Clitheroe (B)	28	68	11	...
Colne (B)	79	154	47	Yes.
Crompton	42	117	26	...
Croston	23	60	...	...
Dalton-in-Furness	53	295	6	When required.
Darwen (B)	75	71	41	When required.
Denton	23	82	43	When required.
Droylsden	13	70	61	...
Eccles (B)	5	45	106	Yes.
Failsworth	12	144	35	...
Farnworth	12	114	64	Yes.
Fleetwood	8	98	59	...
Formby	21	50	2	...
Fulwood	34	11	20	When required.
Golborne	13	40	6	...
Grange-over-Sands	11	130	1	When required.
Great Crosby	14	79	5	...
Great Harwood	20	45	11	...
Haslingden (B)	102	130	11	When required.
Haydock	15	54	4	...
Heywood (B)	35	85	13	When required.
Hindley	27	124	3	When required.
Horwich	34	118	33	Yes.
Huyton-with-Roby	12	24	15	...
Ince-in-Makerfield	4	20	18	...
Irlam	16	56	35	...
Kearsley	4	12	30	...
Kirkham	11	143	1	...
Laneaster (B)	17	17	61	...
Lathom and Burscough	6	18	2	...
Lees	2	7	30	...
Leigh (B)	57	150	69	Yes.
Leyland	48	57	2	...
Litherland	8	32	11	When required.
Littleborough	71	156	1	...
Little Crosby	5	20	...	...
Little Hulton	13	26	4	...
Little Lever	11	34	13	...
Longridge	32	112	3	...

TABLE 14—*continued.*

URBAN DISTRICTS.	COWKEEPERS.		DAIRYMEN OR PURVEYORS OF MILK. (other than cowkeepers).	Arrangements for Veterinary Inspection of Dairy Cows.
	Number.	Number of Inspections.	Number.	
Lytham Saint Anne's (B) ...	32	140	32	Yes.
Middleton (B)	63	116	10	When required.
Milnrow	82	256	1	...
Morecambe and Heysham (B) ...	23	64	75	Yes.
Mossley (B)	17	43	30	When required.
Nelson (B)	32	146	52	Yes.
Newton-in-Makerfield	18	40	26	...
Norden	65	5	2	...
Ormskirk... ..	3	10	8	...
Orrell	17	102	18	...
Oswaldtwistle	84	200	5	...
Padiham	12	20	36	When required.
Poulton-le-Fylde	6	12	3	...
Preesall	40	20	15	...
Preseot	4	42	6	...
Prestwich	14	47	20	Discontinued, March, 1928.
Radeliffe	18	40	35	...
Rainford	21	21	10	...
Ramsbottom	57	276	2	...
Rawtenstall (B)... ..	161	249	2	...
Rishton	27	69	16	When required.
Royton	23	46	15	Yes.
Skelmersdale	9	36	15	...
Standish-with-Langtree ...	31	38	2	...
Stretford	5	70	159	When required.
Swinton and Pendlebury ...	10	78	63	Yes.
Thornton Cleveleys	33	243	15	When required.
Tottington	48	120	2	...
Trawden	85	98	...	...
Turton	342	674	51	...
Tyldesley-with-Shakerley ...	28	60	11	...
Ulverston	24	268	26	When required.
Upholland	34	68	6	...
Urmston	8	16	19	...
Walton-le-Dale	66	172	20	...
Wardle	37	203	1	...
Waterloo-with-Seaforth ...	19	180	26	...
Westhoughton	88	156	...	...
Whitefield	9	201	25	Yes.
Whitworth	36	106	...	When required.
Widnes (B)	28	84	56	Yes.

TABLE 14—*continued.*

URBAN DISTRICTS.	COWKEEPERS.		DAIRYMEN OR PURVEYORS OF MILK. (other than cowkeepers).	Arrangements for Veterinary Inspection of Dairy Cows.
	Number.	Number of Inspections.	Number.	
Withnell	35	91	...	...
Worsley	17	136	18	When required.
Total Urban Districts	3278	9129	2272	
RURAL DISTRICTS.				
Barton-upon-Irwell	42	37	11	When required.
Blackburn	351	901	...	...
Burnley	392	400	...	...
Bury	110	130	100	...
Chorley	279	265	3	...
Clitheroe	181	239	1	...
Fylde	422	365	27	...
Garstang	599	420	2	...
Lancaster	335	311	4	...
Leigh	61	204	2	...
Limehurst	77	49	4	...
Lunesdale	411	Not given	2	...
Preston	695	83	23	...
Sefton	17	111	...	...
Ulverston	196	645	5	When required.
Warrington	67	162	14	...
West Lancashire	68	181	14	...
Whiston	125	100	5	When required.
Wigan	135	Not recorded	5	...
Total Rural Districts	4563	4603	222	
Total Administrative County ...	7841	13732	2494	

THE MILK AND DAIRIES (CONSOLIDATION) ACT, 1915.—TUBERCULOUS MILK.—The administration of this Act and the Milk and Dairies Order of 1926, has thrown, directly and indirectly, very considerable work upon the County Council Public Health Department. The County Council is responsible for dealing with the occurrence in their area of diseases in dairy cattle likely to cause illness to the persons consuming the milk. The tracing of the animals from which the infected milk samples reported to the County Medical Officer by the local Medical Officer have been derived is now an important section of the work of the County Health Department. In this connection during the year 1928 the department submitted 385 samples of milk for examination for tubercle

bacilli; 329 of these were taken as the result of notifications from local authorities under the Milk and Dairies (Consolidation) Act, 1915, that tubercle bacilli had been found in the local milk supply. In each case one of the veterinary surgeons retained by the County Council visited the farm and examined the cattle, and at the same time, one of the County Sanitary Officers inspected the farm premises. A total of 329 samples was submitted, 137 being of unmixed milk (i.e., milk from individual cows), and 192 mixed samples. Of the 137 samples, 44 were reported positive, and 31 of the 192 samples were also positive. The animals examined numbered 2,027. Where tubercle bacilli are found, steps are taken to find the affected animal and unless the particular cow has already been slaughtered, the facts are reported to the County Agricultural Department for action under the Tuberculosis Order of 1925. The Medical Officer of the district from which the original notification came is informed of the steps taken and of the result. Defects noted on the farm premises during these inspections are reported to the local health authority.

In addition to the above examination of milk for tubercle, the officials of 38 local authorities submitted 567 samples for examination; 60 were found positive. Local action is reported from 23 districts in regard to tuberculous cattle.

The County public health staff during 1928 also paid visits to farms for many other purposes, for example, re the issue of licences for the production and distribution of "Grade A" milk, re-inspection of "Grade A" farms, visits in connection with the Clean Milk Competition (referred to in the following paragraphs), for the inspection of new buildings, plant, &c., at the request of local authority or farmer, general inspections in connection with sanitary surveys of districts, complaints, &c. The County staff visits to farm premises totalled 475.

THE LANCASHIRE COUNTY MILK RECORDING SOCIETY'S CLEAN MILK COMPETITION No. 5.—In accordance with the resolution of the Public Health and Housing Committee, the County Public Health Department in 1928 again assisted the Lancashire County Milk Recording Society in their clean milk competition No. 5.

There were 11 entries for this year's competition. In 1927 there were 15 entries; 7 in 1926; 7 in 1925; and 6 in 1924.

The competition No. 5 extended over a period of six months. Six samples of milk were taken from each herd and submitted for bacteriological examination to Professor Maitland, Public Health Laboratory, Manchester.

The method of sampling was as follows:—The County Sanitary Officers paid surprise visits to the various farms, and on each occasion took a sample of the milk for bacteriological examination. The sample was drawn from the tankard by means of a sterilised dipper as soon as possible after the milk had passed over the cooler. The samples were then forwarded by train to the laboratory in special boxes fitted with an ice compartment.

In addition to the taking of samples, surprise visits were paid to each competitor's farm at milking time, and marks were awarded for:—

- (1) The general health of the cows.
- (2) The suitability and care of the utensils and other equipment used.
- (3) The general method of handling the milk.

Awards were made on the following scale:—

Examination of Milk.				Number of Marks.		
Bacterial count	...	...	...	400		
Presence or absence of B. Coli	...		...	300		
Extraneous matter test	...	...	...	50		
Keeping qualities	...	...	...	50	...	800
				<hr/>		
Analysis (butter fat and solids)	...	...	...			100
Inspection on the Farm.						
Health of cows	...	...	...	400		
General management	...	...	...	200	...	600
				<hr/>		
						1,500
				<hr/>		

Results of the Competition.—The results of the competition from the bacteriological point of view were again excellent.

Five competitors exceeded the bacteriological standard required by the Ministry of Health for granting licences for certified milk, and three other competitors reached this standard as regards five of the six samples taken. Of the remaining three competitors, one reached the bacteriological standard required for "Grade A" milk.

In arriving at the awards, careful consideration was given to the reports and observations of Professor Maitland, Director and Bacteriologist of the Public Health Laboratory of the University of Manchester.

The detailed results of the bacteriological examination of the milks are given in the following statement :—

Sample No.	Cultivation. Bacteria growing on standard agar at 37° C. in 48 hours. per c.c.	B. Coli. Present = + Absent = —			Dirt Estimation. parts per 100,000		
		1·0 e.e.	0·1 e.e.	0·01 e.e.	Cells and Cellular Products	Extran- eous Materials	Total Sediment
" B," 1.	320	—	—	—	14	Trace	14
2.	90	—	—	—	16	"	16
3.	350	—	—	—	10	"	10
4.	265	—	—	—	4	"	4
5.	170	—	—	—	8	"	8
6.	520	—	—	—	10	"	10
" B & F," 1.	140	—	—	—	7	Trace	7
2.	425	—	—	—	12	"	12
3.	45	—	—	—	26	"	26
4.	1,115	—	—	—	16	"	16
5.	200	—	—	—	18	"	18
6.	250	—	—	—	20	2	22
" T," 1.	1,107	—	—	—	12	Trace	12
2.	895	—	—	—	12	"	12
3.	770	—	—	—	10	"	10
4.	11,800	—	—	—	2	"	2
5.	245	—	—	—	14	"	14
6.	380	—	—	—	10	"	10
" H & S," 1.	1,010	—	—	—	42	Trace	42
(1) 2.	3,105	—	—	—	12	"	12
3.	6,000	—	—	—	40	"	40
4.	35,000	—	—	—	24	"	24
5.	1,023	—	—	—	7	"	7
6.	7,700	—	—	—	10	3	13
" C I," 1.	4,750	—	—	—	10	2	12
2.	3,600	—	—	—	14	Trace	14
3.	565	+	—	—	28	"	28
4.	1,560	—	—	—	14	"	14
5.	3,400	+	—	—	28	"	28
6.	1,125	—	—	—	40	"	40
" H & C," 1.	1,040	—	—	—	14	2	16
2.	12,000	—	—	—	15	Trace	15
3.	4,650	—	—	—	18	"	18
4.	480	+	+	—	18	5	23
5.	1,443	—	—	—	14	Trace	14
6.	2,227	—	—	—	6	2	8
" D," 1.	2,850	—	—	—	33	Trace	33
2.	8,100	+	—	—	104	"	104
3.	1,523	+	—	—	10	"	10
4.	8,300	—	—	—	Not Done		...
5.	7,250	—	—	—	60	Trace	60
6.	1,275	—	—	—	75	"	75
" C & S," 1.	29,000	—	—	—	5	2	7
2.	12,725	—	—	—	2	Trace	2
3.	15,650	—	—	—	12	"	12
4.	53,000	—	—	—	19	"	19
5.	3,300	—	—	—	23	"	23
6.	8,750	+	—	—	4	"	4

Sample No.	Cultivation. Bacteria growing on standard agar at 37° C. in 48 hours. per c.c.	B. Coli. Present = + Absent = -			Dirt Estimation. parts per 100,000		
		1·0 c.c.	0·1 c.c.	0·01 c.c.	Cells and Cellular Products	Extran- eous Materials	Total Sediment
“H & S,” (2)	1. 385	—	—	—	26	Trace	26
	2. 5,750	—	—	—	10	”	10
	3. 42,500	+	—	—	58	”	58
	4. 17,100	—	—	—	62	”	62
	5. 11,267	—	—	—	22	”	22
	6. 126,000	+	—	—	6	2	8
“W,”	1. 1,468	+	—	—	12	Trace	12
	2. 2,850	—	—	—	12	”	12
	3. 12,900	+	+	+	18	”	18
	4. 20,067	+	+	+	13	3	16
	5. 14,025	+	—	—	24	4	28
	6. 3,000	—	—	—	7	3	10
“S,”	1. 205	—	—	—	22	Trace	22
	2. 1,347	+	+	+	20	”	20
	3. 25,750	+	—	—	24	2	26
	4. 1,180	+	+	+	32	Trace	32
	5. 570	+	+	—	112	”	112
	6. 30,500	+	+	+	20	”	20

The allocation of marks was made in accordance with the suggestions of the Ministry of Agriculture and Fisheries.

Several improvements have been carried out at the various farms as the result of suggestions made by the County Sanitary Officers.

The following reports were forwarded to the Society :—

“B.”—The results of the bacteriological examinations of the samples of milk obtained from this farm reached the highest standard yet attained since the competition was commenced.

All samples reached the standard for certified milk, and the bacterial counts per c.c. were unusually low.

In no case was bacillus coli discovered in either 1·0 c.c., 0·1 c.c., or 0·01 c.c.

In the tests for extraneous materials and keeping qualities, maximum marks were obtained.

The milk kept, on an average, for 6 days.

On the maximum of 800 marks, the award in this case is 799·5.

“B & F.”—These competitors also attained a very high standard of cleanliness, and in company with competitor “B,” obtained a record number of marks. Though occupying second place, the difference is extremely small.

The bacterial counts were extremely low, and in all cases bacillus coli was absent in 1·0 c.c., 0·1 c.c., and 0·01 c.c.

The tests for extraneous materials and keeping qualities obtained the maximum marks, the average time of keeping being 6 days.

On the maximum of 800 marks, the award in this case is 798·5.

“T.”—The results of the examinations of the samples of milk from this farm were very good.

The bacterial counts per c.c. in all samples were above the standard required by the Ministry of Health for granting licences for certified milk. In no case was bacillus coli discovered in either 1·0 c.c., 0·1 c.c., or 0·01 c.c.

The results of the tests for extraneous materials and keeping qualities were also good. The milk kept, on an average, for 5 days.

On the maximum of 800 marks the award in this case is 779·5.

“H & S.” (1)—The examinations of the samples of milk from this farm showed that a good standard of cleanliness is maintained. Five of the six samples reached the standard required for certified milk.

The results of the tests for extraneous materials and keeping qualities were good.

The maximum number of marks were awarded for the absence of extraneous materials, and the average time of keeping was 5 days.

On the maximum number of marks (800) the award in this case is 744·5.

“C I.”—The samples from this farm reached the standard required by the Ministry of Health for certified milk.

Maximum marks were awarded for the absence of extraneous materials and the milk kept, on an average, for 5 days.

On the maximum of 800 marks the award in this case is 741·5.

“H & C.”—These competitors produced a good milk which in five out of the six samples reached the bacteriological standard required by the Ministry of Health for granting licences for certified milk.

In one sample only was bacillus coli present.

The results of the tests for extraneous materials and keeping qualities were fairly good.

On the maximum of 800 marks the award in this case is 733.

“D.”—This competitor reached the standard required for certified milk.

The tests for extraneous materials and keeping qualities were very good.

On the maximum of 800 marks the award in this case is 728·5.

- “ C & S.”—This competitor reached the standard required by the Ministry of Health for certified milk as regards five of the six samples obtained.
The results of the various tests were generally good.
On the maximum of 800 marks the award in this case is 662.
- “ H & S.” (2)—All the samples from this farm reached the standard required for “ Grade A ” milk.
The maximum number of marks have been awarded for the absence of extraneous materials.
The milk kept, on an average, for 4 days.
On the maximum of 800 marks the award in this case is 645.
- “ W.”—The results of the bacteriological examinations of the samples from this farm were fair.
Bacillus coli was present in 0·01 c.c. in 2 samples.
The tests for extraneous materials and keeping qualities were fair.
On the maximum of 800 marks the award in this case is 619·5.
- “ S.”—The samples taken at this farm were below the standard to be expected in a clean milk competition.
Five of the six samples contained bacillus coli, three being in 0·01 of a c.c.
The keeping qualities of the milk were also poor.
On the maximum of 800 marks the award in this case is 568.

THE MILK (SPECIAL DESIGNATIONS) ORDER, 1923.—Under this Order the County Council in 1928 issued 36 licences for the production and distribution of “ Grade A ” milk.

Before a licence is issued visits of inspection are made to the farm by one of the County Sanitary Officers. Some of the premises licensed needed little alteration structurally, whilst at others considerable improvements were effected.

TABLE 15.—THE MILK (SPECIAL DESIGNATIONS) ORDER, 1923.

URBAN DISTRICTS.	Licences issued by Ministry of Health.	Licences issued by County Council.	Licences issued by Local Authorities.				
			No. of Dealers' Licences issued in respect of :—			No. of Licences issued in respect of “ Pasteurised ” Milk.	
			“ Certified ” Milk.	“ Grade A (Tuberculin Tested) ” Milk.	“ Grade A ” Milk.	Pasteurising Plants.	Retail Distributors.
Abram	3
Aecrington (B)	3	...	3	...	...
Ashton-in-Makerfield	1	2
Aspull	2
Atherton...	1
Brierfield	1	1
Chorley (B)	1	1	1
Church	1
Clayton-le-Moors	1	...	...	1	...	3
Clitheroe (B)	2	...	...
Colne (B)	1	...	3	...	...
Darwen (B)	1	...	2	...	1
Denton	1
Eccles (B)	2	...	...	...	2
Failsworth	2
Farnworth	1	...	7	1	...
Fleetwood	1	...	...	...	2
Formby	1	...	...	...	...
Golborne...	1
Great Crosby	3	2	2	...	...
Great Harwood	1	...	...	...	1	...	1
Haslingden (B)	1	...	1	...	...	...	...
Hindley	14
Huyton-with-Roby	1	...	1	...	...	...	...
Ince-in-Makerfield	18
Irlam	2	...	...
Kirkham...	5	...	...

TABLE 15—*continued.*

URBAN DISTRICTS.	Licences issued by Ministry of Health.	Licences issued by County Council.	Licences issued by Local Authorities.				
			No. of Dealers' Licences issued in respect of:—			No. of Licences issued in respect of "Pasteurised Milk"	
			"Certified" Milk.	"Grade A (Tuberculin Tested)" Milk.	"Grade A" Milk.	Pasteurising Plants.	Retail Distributors.
Laneaster (B)	2	...	...	...	...
Lathom and Bursecough	1	...	...
Leigh (B)	7	...	4
Longridge	1	...	...	1	...	...
Lytham Saint Anne's (B)	1	4	...	3	...	...
Middleton (B)	1	1	...	...	1
Morecambe and Heysham (B)	1	1	1	...	2
Mossley (B)	1	...	...	...	...
Nelson (B)	1	...	6	...	...
Orrell	35	...	...	...	2
Oswaldtwistle	1	...	2
Poulton-le-Fylde	2	...	...	2	...	...
Prestwich	3	...	...	...	...
Rishton	1	...	2	...	2
Standish-with-Langtree	2
Stretford	2	1	4	...	3
Swinton and Pendlebury	2	...	...	...	1
Thornton Cleveleys	1	...	2	...	1
Tyldesley-with-Shakerley	1	...	...
Ulverston	1	...	...	1	...	...
Urmston	1	...	...
Walton-le-Dale	1	...	...	3	...	...
Waterloo-with-Seaforth	4	...	...	...	...
Westhoughton	5
Whitefield	2	...	...	...	...
Widnes (B)	1	...	...	...
Withnell	1	...	...	...	...	...	...
Worsley	1
RURAL DISTRICTS.							
Barton-upon-Irwell	1	1	...	1
Blaekburn	5	1	...	...	...	...
Bury	1
Chorley	4	...	...	1	...	1
Clitheroe	3	...	...	...	1	...
Fylde	7	...	...	5	...	...
Garstang...	3	...	...	...	...	...
Preston	3	...	...	...	...	...
Ulverston	1	...	...	...	...	...
West Lancashire	2	...	...	2	...	...
Whiston	1	...	...	...	...	...	...
Wigan	1	...	...	1	...	...
	5	36	76	7	75	5	85

The following statement summarizes the results of the examinations of milk samples taken by the County staff during the year from the farmers licensed in 1928 for the production of "Grade A" milk :—

Licence No.	*Cultivation. Bacteria growing on standard agar at 37° C. in 48 hours. per c.c.	*B. Coli. Present = + Absent = -			Dirt Estimation. parts per 100,000		
		1.0 c.c.	0.1 c.c.	0.01 c.c.	Cells and Cellular Products	Extran- eous Materials	Total Sediment
1.	3,400	—	—	—	100	Trace	100
	1,410	—	—	—	20	,,	20
2.	23,500	—	—	—	20	Trace	20
	40,300	—	—	—	28	,,	28
3.	20,000	—	—	—	48	16	64
	90,500	+	—	—	242	8	250
4.	11,125	+	—	—	15	4	19
6.	2,527	—	—	—	12	6	18
	15,350	+	+	+	19	Trace	19
	6,600	—	—	—	8	2	10
7.	3,350	—	—	—	...	...	...
	2,200	—	—	—	8	Trace	8
8.	450	+	—	—	4	Trace	4
	29,000	—	—	—	54	,,	54
9.	450	—	—	—	...	...	...
	7,850	—	—	—	...	...	...
	27,500	—	—	—	24	Trace	24
10.	4,200	—	—	—	22	Trace	22
	9,550	+	+	+	12	,,	12
	1,230	+	+	+	12	,,	12
	8,267	+	—	—	6	4	10
	445	—	—	—	20	Trace	20
11.	7,200	+	+	—	17	Trace	17
	1,810	+	+	—	21	,,	21
12.	1,850	—	—	—	...	...	...
13.	22,850	—	—	—	110	Trace	110
	27,400	—	—	—	128	,,	128
	2,850	—	—	—	33	,,	33
	8,100	+	—	—	104	,,	104
	1,523	+	—	—	10	,,	10
	8,300	—	—	—	Not	Done	...
	7,250	—	—	—	60	Trace	60
	1,275	—	—	—	75	,,	75
14.	480	—	—	—	120	Trace	120
15.	860	—	—	—	...	...	...
	1,208	+	+	—	12	Trace	12
	49,000	+	+	+	28	2	30

Clean
Milk
Competition
Samples.

*Standard :—Not more than 200,000 bacteria per c.c. and no B. Coli in 0.01 of a c.c.

"Grade A" Milk—continued.

Licence No.	*Cultivation. Bacteria growing on standard agar at 37° C. in 48 hours. per c.e.	*B. Coli. Present = + Absent = —			Dirt Estimation. parts per 100,000.		
		1.0 c.e.	0.1 c.e.	0.01 c.e.	Cells and Cellular Products	Extran- eous Materials	Total Sediment
16.	830	—	—	—	10	Trace	10
	385	—	—	—	26	"	26
	5,750	—	—	—	10	"	10
	42,500	+	—	—	58	"	58
	17,100	—	—	—	62	"	62
	11,267	—	—	—	22	"	22
	126,000	+	—	—	6	2	8
							Clean Milk Competition Samples.
17.	1,520	—	—	—	8	4	12
	1,107	—	—	—	12	Trace	12
	895	—	—	—	12	"	12
	770	—	—	—	10	"	10
	11,800	—	—	—	2	"	2
	245	—	—	—	14	"	14
	380	—	—	—	10	"	10
							Clean Milk Competition Samples.
18.	1,525	—	—	—	8	2	10
	1,890	—	—	—	24	Trace	24
19.	3,550	+	—	—	7	Trace	7
	690	—	—	—	12	"	12
	13,730	+	—	—	12	"	12
20.	4,550	+	+	+	10	Trace	10
	2,000	+	+	—	19	"	19
	1,253	—	—	—	20	"	20
21.	610	—	—	—	18	Trace	18
	1,010	—	—	—	42	"	42
	3,105	—	—	—	12	"	12
	6,000	—	—	—	40	"	40
	35,000	—	—	—	24	"	24
	1,023	—	—	—	7	"	7
	7,700	—	—	—	10	3	13
							Clean Milk Competition Samples.
22.	38,500	+	+	—	40	Trace	40
	39,500	+	+	—	50	"	50
23.	610	—	—	—	50	Trace	50
	695	+	—	—	30	"	30
25.	1,320	+	+	—	36	Trace	36
	740	+	+	—	10	"	10
	2,360	+	—	—	...	...	...
26.	280	—	—	—	24	2	26
	7,200	—	—	—	17	Trace	17
	485	—	—	—	32	"	32
27.	5,500	—	—	—	6	2	8
	5,950	—	—	—	20	Trace	20
	18,700	+	+	—	...	...	...
	3,650	—	—	—	25	Trace	25

* Standard :—Not more than 200,000 bacteria per c.e. and no B.Coli. in 0.01 of a c.e.

“Grade A” Milk—continued.

Licence No.	*Cultivation. Bacteria growing on standard agar at 37° C. in 48 hours. per c.c.	*B. Coli. Present = + Absent = —			Dirt Estimation. parts per 100,000.		
		1·0 c.c.	0·1 c.c.	0·01 c.c.	Cells and Cellular Products.	Extran- eous Materials	Total Sediment.
28.	8,450	—	—	—	14	2	16
29.	470	—	—	—	30	4	34
	135	—	—	—	32	Trace	32
	14,200	—	—	—	32	„	32
30.	1,927	—	—	—	20	Trace	20
	5,200	—	—	—	12	„	12
31.	6,200	+	+	—	20	4	24
	1,610	—	—	—	60	Trace	60
32.	240	—	—	—	38	Trace	38
	7,400	+	+	—	86	„	86
33.	650	—	—	—	20	5	25
	162,000	+	—	—	17	Trace	17
	680	—	—	—	...	...	...
	2,950	—	—	—	6	Trace	6
34.	2,200	—	—	—	24	Trace	24
	21,000	—	—	—	19	8	27
35.	950	—	—	—	6	2	8
	205	—	—	—	22	Trace	22
	1,347	+	+	+	20	„	20
	25,750	+	—	—	24	2	26
	1,180	+	+	+	32	Trace	32
	570	+	+	—	112	„	112
	30,500	+	+	+	20	„	20
36.	250	—	—	—	24	Trace	24
	2,850	—	—	—	19	3	22

* Standard :—Not more than 200,000 bacteria per c.c. and no B. Coli in 0·01 of a c.c.

Inspection of Meat and Other Food.—Comments are made in most of the local reports on the action taken with regard to the inspection of meat and other food, including inspection of slaughter-houses, meat shops, stalls and vehicles, and places where food is prepared.

UN SOUND FOOD.—The following statement shows approximately the amount of unsound or diseased food condemned and destroyed by the local health officers during 1928 :—

On account of Tuberculosis.—214,048 lbs. of meat (including weights of carcasses and parts of carcasses); 68 whole carcasses, weight not stated; 5,207 lbs. of offal; 26 sets of organs, and 161 separate organs; 5 pairs lungs; 1 pig head.

For other reasons.—22 whole carcasses; 59,965 lbs. meat (not classified), 1,779 lbs. mutton; 2,699 lbs. pork and bacon; 2,463 lbs. liver and 160 livers (sheep, pigs and beasts); 2,080 lbs. offal, 15 plucks, 4 sets lights, 1 stomach, 750 lbs. internal organs, 11 sets and 7 lungs, 43 organs, organs of 3 pigs; 13,762 lbs. fish, 3 boxes and 6 pairs kippers, 3 boxes haddock, 1 barrel and 24 crabs, 14 tins salmon; 1,053 lbs. fruit, 1 case fruit, 18 tins fruit, 25 boxes and 3 barrels apples; 3 turkeys, 1 chicken, 48 ducks, 1 hen; 1 barrel salted pigs' maws; 85 tins condensed milk; 4 baskets strawberries, 240 cabbages, 1,200 lettuces, 1,232 lbs. potatoes; 26 tins corned beef, 15½ udders, 7 heads and 5 tongues, 9 rabbits; 7,030 lbs. miscellaneous foods.

Legal action was found necessary as follows :—At Middleton (B), five prosecutions, 3 under Meat Regulations—fined £15, £10 10s., and £1 ; 2 under Public Health Act, 1875, Section 117, for exposing diseased meat for sale, one fined £10 and one warned and to pay costs.

SLAUGHTERHOUSES.—These premises number 723—registered, 331 ; licensed, 392. Four prosecutions were taken successfully in Preston (R) for failing to give notice of slaughter.

PUBLIC ABATTOIRS.—Public abattoirs have been provided at Accrington (B), Chorley (B), Clitheroe (B), Colne (B), Darwen (B), Fleetwood, Great Harwood, Lancaster (B), Lytham Saint Anne's (B), Newton-in-Makerfield and Oswaldtwistle. The Medical Officers of Health of the following districts recommend the provision of a public abattoir: Farnworth, Haslingden (B), Hindley, Horwich, Littleborough, Ulverston and Worsley. The Medical Officer of Health of Fleetwood recommends the provision of a new abattoir.

SALE OF FOOD ORDER.—Legal proceedings were instituted by the County Authority at Haydock for exposing for sale a quantity of imported meat which was not labelled as required by the Order ; purveyor fined £1.

Food Poisoning.—Instances of food poisoning were reported at Nelson (B) and Preesall.

Bakehouses.—From the local returns, there are 2,517 bakehouses in the County area.

Sale of Food and Drugs Acts, 1875-1907, &c.—The following paragraphs and tables are extracted from the annual report for the year 1928 of the County Analyst, Mr. G. D. Elsdon, B.Sc., F.I.C. :—

During the year a total of 5,395 samples have been submitted for examination and report. Of this number, 4,933 were submitted either under or in connection with the Sale of Food and Drugs Acts, whilst 462 were submitted for other purposes, full details of which are given in the body of the report.

Of the 4,933 food and drugs samples, 146, or 3·0 per cent., were returned as adulterated.

The number of samples submitted under various heads is as follows :—

Sale of Food and Drugs Acts	...	...	4,933
“ Appeal to cow ” samples	...	...	67
Milks from County Council Farm	...	...	94
Fertilisers and Feeding Stuffs Act	...	...	19
Drinking waters	...	...	124
Effluents and brook waters	...	...	35
Coroners	...	...	36
Miscellaneous	...	...	87
			<hr/> 5,395 <hr/>

These numbers are compared with those in previous years in the following table, where “ appeal to cow ” samples are included under Food and Drugs Act samples.

TOTAL NUMBER OF SAMPLES EXAMINED 1920-1928.

Year.	Food and Drugs Act.	Fertiliser and Feeding Stuffs Act.	Waters and Effluents.	Coroner and Police.	Miscel- laneous.	Total.
1920	4,732	4	59	20	12	4,827
1921	4,919	1	46	17	11	4,994
1922	4,977	0	62	38	33	5,110
1923	4,948	3	71	20	49	5,091
1924	4,995	3	60	27	23	5,108
1925	4,589	9	66	54	33	4,751
1926	4,841	2	45	10	298	5,196
1927	4,396	7	77	18	44	4,542
1928	5,000	19	159	36	181	5,395

SAMPLES TAKEN UNDER THE SALE OF FOOD AND DRUGS ACTS.—The total number of Foods and Drugs examined during the year was 4,933. The following table gives complete details concerning the various articles examined.

Samples.	Number examined.			Number adulterated.			Percentage of Adulteration.
	Formal.	Informal.	Total.	Formal.	Informal.	Total.	
Milk	2753	18	2771	95	...	95	3·4
Skimmed Milk	2	...	2	...	...	...	...
Condensed Milk ... ..	...	26	26	...	...	...	...
Dried Milk ... ..	...	1	1	...	...	...	...
Cream	2	13	15	...	1	1	6·6
Butter	3	140	143	...	2	2	1·4
Cheese ... ..	...	110	110	...	...	...	...
Margarine	3	112	115	...	1	1	0·9
Lard ... ..	...	139	139	...	...	...	...
Suet ... ..	...	8	8	...	2	2	25·0
Dripping ... ..	...	1	1	...	...	...	...
Sugar ... ..	...	36	36	...	...	...	...
Sweets ... ..	...	91	91	...	1	1	1·1
Jam	3	43	46	...	2	2	4·3
Jelly ... ..	...	19	19	...	...	...	...
Honey ... ..	...	3	3	...	...	...	...
Syrup ... ..	...	1	1	...	...	...	...
Treacle ... ..	...	1	1	...	...	...	...
Lemon Cheese ... ..	...	10	10	...	...	...	...
Flavouring Materials ... ..	...	4	4	...	...	...	...
Dried Fruit ... ..	...	1	1	...	...	...	...
Ground Almonds ... ..	...	18	18	...	...	...	...
Coconut ... ..	...	2	2	...	...	...	...
Mincedmeat ... ..	...	1	1	...	...	...	...
Plum Pudding ... ..	...	1	1	...	...	...	...
Tea ... ..	...	59	59	...	...	...	...
Coffee ... ..	...	142	142	...	...	...	...
Coffee and Chicory ... ..	...	1	1	...	...	...	...
Cocoa ... ..	...	39	39	...	...	...	...
Rice ... ..	...	16	16	...	...	...	...
Ground Rice ... ..	...	29	29	...	...	...	...
Sago ... ..	...	19	19	...	...	...	...
Tapioca ... ..	...	15	15	...	...	...	...
Barley ... ..	...	19	19	...	1	1	6·3
Cornflour ... ..	...	24	24	...	1	1	4·2
Arrowroot	2	38	40	2	2	4	10·0
Oatmeal ... ..	...	10	10	...	...	...	...
Flour ... ..	...	4	4	...	...	...	...
Self Raising Flour ... ..	...	14	14	...	...	...	...
Cake Flour ... ..	...	15	15	...	...	...	...
Cakes	1	47	48	...	...	...	...
Cream Cakes	8	74	82	3	13	16	19·5
Baking Powder ... ..	...	68	68	...	...	...	...
Egg Powder ... ..	...	15	15	...	...	...	...
Custard Powder... ..	...	22	22	...	...	...	...
Blanc Mange Powder ... ..	...	6	6	...	...	...	...
Dried Eggs ... ..	...	2	2	...	...	...	...
Yeast ... ..	...	5	5	...	...	...	...
Bicarbonate of Soda	1	40	41	...	1	1	2·4
Cream of Tartar ... ..	...	45	45	...	1	1	2·2
Tartaric Acid ... ..	...	4	4	...	...	...	...
Sausages	6	82	88	3	9	12	13·7
Cooked Meat ... ..	...	13	13	...	...	...	...
Meat Pic ... ..	...	4	4	...	...	...	...
Potted Meat and Fish	1	51	52	...	...	...	...
Canned Meat, Fish and Fruit ... ..	...	20	20	...	...	...	...
Picked Shrimps	1	...	1	...	...	...	...
Meat Extract ... ..	...	1	1	...	...	...	...
Soup Powder ... ..	...	1	1	...	...	...	...
Salt ... ..	...	1	1	...	...	...	...
Pepper	1	121	122	...	...	...	...
Ginger ... ..	...	80	80	...	2	2	2·5
Spice ... ..	...	9	9	...	...	...	...
Cinnamon ... ..	...	6	6	...	...	...	...
Mustard ... ..	...	15	15	...	...	...	...

Samples.	Number examined.			Number adulterated.			Percentage of Adulteration.
	Formal.	Informal.	Total.	Formal	Informal.	Total	
Vinegar	4	4	...	...	...	...
Sauce and Pickles	11	11	...	...	...	...
Gravy Browning	16	16	...	...	...	...
Olive Oil	6	6	...	...	...	...
Beer	2	2	...	...	...	...
Lemonade	1	1	...	...	...	...
Lemonade Powder	3	3	...	1	1	33·3
Raspberry Vinegar	1	1	...	...	...	...
Whisky	1	6	7	...	...	...	...
Rum	6	6	...	...	...	...
Rum and Coffee	1	1	...	1	1	100·0
Almond Oil	6	6	...	...	...	...
Ammoniated Tincture of Quinine	7	7	...	...	...	...
Ammoniated Quinine Tablets... ..	1	1	2	1	1	2	100·0
Bismuth Salts	4	4	...	...	...	...
Borax	15	15	...	...	...	...
Camphorated Oil	2	2	...	...	...	...
Castor Oil	6	6	...	...	...	...
Cod Liver Oil	1	1	...	...	...	...
Compounded Drugs	11	11	...	...	...	...
Epsom Salts	17	17	...	...	...	...
Glauber Salts	4	4	...	...	...	...
Glycerine	7	7	...	...	...	...
Gregory Powder	11	11	...	...	...	...
Liquid Paraffin	1	1	...	...	...	...
Liquorice Powder	2	2	...	...	...	...
Magnesia...	7	7	...	...	...	...
Sulphur Tablets...	3	3	...	...	...	...
Tincture of Iodine (Strong)	6	6	...	...	...	...
Tincture of Iodine (Weak)	1	1	...	...	...	...
	2789	2144	4933	104	42	146	3·0

Of these 4,933 samples, 146, or 3·0 per cent., were returned as adulterated. In the following table this percentage of adulteration is compared with that for all four quarters of the last three years.

The usual figure for adulteration for the whole of England and Wales is about 6·0 per cent., that for 1927, the last year for which figures are available, being 5·5 per cent.

PERCENTAGE OF ADULTERATION—ALL SAMPLES.

Year.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Whole Year.	
	No. of samples.	% of Adult.	No. of samples.	% of Adult.	No. of samples.	% of Adult.	No. of samples.	% of Adult.	No. of samples.	% of Adult.
1926... ..	1215	3·5	1074	2·8	954	2·3	1504	1·7	4747	2·5
1927... ..	819	2·0	1215	3·2	910	2·5	1397	1·5	4341	2·3
1928... ..	1182	3·0	1248	4·6	1046	2·5	1457	1·9	4933	3·0

MILK.—Two thousand seven hundred and seventy-one samples of milk have been examined during the year, of which 95, or 3·4 per cent., have been returned as adulterated. This figure is very much less than that for the whole of England and Wales, which was 6·9 per cent. in 1927.

It was noticed during the year 1927 that the amount of adulteration in the third and last quarters was low, and that the majority of the adulterated samples were received during the last few weeks in the last quarter. The same thing has not been noticed during 1928, although the amount of adulteration was less in the third quarter than in either of the first two and less again in the fourth. In general, the amount of adulteration in the latter half of the year appears to be less than that in the former.

The following table gives comparative figures for milk adulteration for the last three years :—

PERCENTAGE OF ADULTERATION : MILK SAMPLES.

Year.		1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Whole Year.	
		No. of samples.	% of Adult.	No. of samples.	% of Adult.	No. of samples.	% of Adult.	No. of samples.	% of Adult.	No. of samples.	% of Adult.
1926...	...	704	5.1	555	4.9	526	2.7	929	2.4	2714	3.6
1927...	...	464	2.4	643	3.4	468	1.1	837	1.7	2412	2.2
1928...	...	746	4.0	666	4.2	562	3.6	797	2.0	2771	3.4

The average composition of the whole of the milks examined, including “Appeal to cow” samples, is given in the following table, from which it will be seen that the average fat content is 3.74 per cent., whilst that for solids-not-fat is 8.90 per cent. These figures are almost the same as those for 1927, which were 3.76 and 8.94 per cent. respectively. The fat for both 1927 and 1928 was higher than that for 1926, which was 3.66. It should be remembered that these averages include the whole of the adulterated samples, and also that where samples are just on the limit, more than one sample may be taken from the same vendor, and it follows, therefore, that the final averages are not quite a true indication of the quality of the milk in the areas from which the supplies of the County are drawn. Actually, the milk is of slightly better quality.

AVERAGE COMPOSITION OF MILKS, 1928.

Month.		* Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January	...	212	12.57	3.68	8.89
February	...	298			
March	...	259			
April	...	235	12.54	3.64	8.90
May	...	253			
June	...	204			
July	...	260	12.51	3.70	8.81
August	...	138			
September	...	177			
October	...	268	12.89	3.92	8.97
November	...	242			
December	...	292			
		2838	12.64	3.74	8.90

* Includes “Appeal to cow” samples.

For comparative purposes the corresponding annual figures are given in the next table for the past thirteen years.

AVERAGE COMPOSITION OF MILKS, 1916-1928.

Year.		Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
1916	...	2767	12.54	3.66	8.88
1917	...	2869	12.52	3.71	8.81
1918	...	3396	12.51	3.67	8.84
1919	...	2993	12.56	3.65	8.91
1920	...	2889	12.64	3.68	8.96
1921	...	2451	12.59	3.65	8.94
1922	...	2774	12.72	3.69	9.03
1923	...	3011	12.71	3.68	9.03
1924	...	3142	12.70	3.71	8.99
1925	...	2958	12.54	3.62	8.92
1926	...	2795	12.58	3.66	8.92
1927	...	2467	12.70	3.76	8.94
1928	...	2838	12.64	3.74	8.90
		37350	12.61	3.68	8.93

Although the average amount of fat in milk is well above the limit of 3·0 per cent. fixed by the Sale of Milk Regulations, it has been claimed on many occasions that the percentage of fat is seriously diminished during the season when the cows are first put out to grass, diminished so seriously in fact that a considerable number, if not the majority, of herds will be giving milk containing less fat than 3·0 per cent.

In order to see how much such a statement is supported by the results of analysis, the whole of the samples taken during the years 1913–1928 in the County of Lancaster have been averaged according to the month in which they were taken, and the figures so obtained are arranged in the following table.

AVERAGE COMPOSITION OF MILKS FOR EACH MONTH, 1913–1928.
COUNTY OF LANCASTER.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January ...	3275	12·54	3·62	8·92
February ...	3951	12·49	3·60	8·89
March ...	4177	12·50	3·60	8·90
April ...	3497	12·51	3·63	8·88
May ...	3973	12·51	3·58	8·93
June ...	3963	12·49	3·55	8·94
July ...	3607	12·41	3·58	8·83
August ...	2244	12·52	3·65	8·87
September ...	3854	12·69	3·76	8·93
October...	4353	12·81	3·86	8·95
November ...	4346	12·77	3·83	8·94
December ...	4130	12·66	3·73	8·93
	45370	12·58	3·67	8·91

It will be seen from the above that whilst the average percentage of fat for the whole period is 3·67, it varies from month to month through a total variation of from 3·55 to 3·86. The lowest fat percentages are found in the months of May, June and July, and these figures show, of course, that milk is, on the average, just a little poorer (about 0·1 per cent.). In the months of October and November, however, the amount of fat is above the average, more above than it is below in June, and the figures as a whole show that there is not the slightest excuse for any herd giving an average sample of milk below the limit of 3·0 per cent. even during the month of June.

It may be argued by those who are interested in attempting to establish the fact, whether rightly or wrongly, that natural milks of poor quality are very common, that average figures mean very little, and that an average of 3·5 is produced whether the milks are mostly of 3·4 and 3·6 or 2·5 and 4·5, and that a high average does not exclude the possibility of low individual figures. From the purely mathematical point of view there is, of course, something in this argument, but those who have any experience of milk statistics, even those who, it is to be feared, sometimes find it convenient to feign ignorance on the subject, know quite well that the percentage of herds giving mixed milk below the limits of the Milk Regulations is quite small.

In order to make this fact clear, and to put the above averages in their proper perspective, figures have been worked out for the percentage of all milks, the fat of which has fallen below 3·0 per cent., or the solids-not-fat below 8·5 per cent. The percentage figures are given in columns 4 and 6 respectively of the table below.

Year.	Total Milks.	Below 3 per cent. Fat.	Per cent.	Below 8·5 per cent. S-n-f.	Per cent.	"Appeal to cow" sam- ples.	Below 3 per cent. Fat.	Per cent. on Col. 2.	Below 8·5 per cent. S-n-f.	Per cent. on Col. 2.
1920...	2,879	121	4·2	60	2·1	58	11	0·4	4	0·1
1921...	2,794	129	4·6	75	2·7	54	16	0·6	0	0·0
1922...	2,777	124	4·5	82	2·9	37	6	0·2	1	0·04
1923...	3,020	139	4·6	87	2·9	29	9	0·3	10	0·3
1924...	3,169	109	3·4	115	3·6	21	2	0·06	1	0·03
1925...	2,938	174	5·9	143	4·9	52	7	0·2	5	0·2
1926...	2,714	144	5·3	64	2·3	88	22	0·8	3	0·1
1927...	2,412	75	3·1	41	1·7	55	19	0·8	2	0·08
1928...	2,771	111	4·0	79	2·8	67	20	0·7	9	0·3
	25,474	1,126	4·4	746	2·9	461	112	0·4	35	0·1

It will be seen that for a period of nine years, including over 25,000 samples, 4·4 per cent. of these have contained less than 3·0 per cent. of fat and 2·9 per cent. less than 8·5 per cent. of solids-not-fat. At first sight these figures may appear somewhat startlingly high, but it must be remembered that they contain not only those milks which are naturally poor, but also those which either wilfully or by carelessness have been made poor. In order to decide whether a given poor milk is naturally poor or has been adulterated, it has been the policy of the County Council for a number of years to take "Appeal to cow" samples. In most cases, the "Appeal to cow" sample shows that the milk is of good quality, and that the original milk of low quality has been tampered with. There are, however, a certain number of cases in which the quality of the "Appeal to cow" sample is low. The number of these found in each year is given in columns 8 and 10 of the table, on the previous page, whilst the percentage of low-quality "Appeal to cow" samples based on the total number of samples in the year is given in the columns 9 and 11.

These two columns 9 and 11 are illuminating; they show that out of the milks supplied by 25,000 herds over a period of nine years, less than 1 per cent. are giving milks of lower quality than 3·0 per cent. of fat and 8·5 per cent. of solids-not-fat, the "Appeal to cow" samples being taken under conditions where it is to the advantage of the farmer in question to supply milk of the lowest quality.

Even those "Appeal to cow" samples that were actually deficient were, as a general rule, only slightly deficient, in many cases so slightly deficient that no public analyst would issue a certificate for prosecution.

A prosecution is only instituted by the County Council when there is a considerable difference between the formal sample and the corresponding "Appeal to cow" sample, and when the only obvious explanation of the difference is adulteration. Legally, of course, the prosecution is not obliged to take these precautions, the onus being on the defence. Proceedings may be instituted on any sample the composition of which is below that of the Sale of Milk Regulations, but in practice such proceedings are only commenced when there is certainly a very strong case to answer. Even under these circumstances, however, the defence have their opportunity, and magistrates are quite rightly inclined to the side of the defendant until they are assured that he is guilty.

ADULTERATION OF MILK.—In addition to the samples of milk returned as adulterated, 62 were described in the certificates as poor, and it was advised that further samples should be taken from the vendors supplying. In some cases this has already been done, whilst other cases are still under observation. Of these poor samples, 41 were slightly deficient in fat, and 21 were slightly deficient in solids-not-fat. The amount of the deficiency was, however, so little below the minimum fixed by the Sale of Milk Regulations that it was not considered reasonable to institute proceedings. By keeping a watch on such vendors, either an improvement will take place, which is the real object of the Sale of Food and Drugs Acts, or else in all probability a sample will sooner or later be obtained, the composition of which is sufficiently low to justify a prosecution.

A list of the adulterated samples, together with the action taken in regard to each one, is given in the following table:—

Number of Sample.	Nature of Adulteration.	Action taken.	Result of Prosecution.	Remarks.
873 Km.D. ...	Deficient 10% Fat ...	None ...		"Appeal to cow" sample low.
877 Km.D. ...	Deficient 5% Solids-not-fat ...	Caution		
359 C.D. ...	Deficient 11½% Fat ...	Prosecution ...	Dismissed.	
759 S.L.D. ...	Deficient 13% Fat ...	Caution		
765 S.L.D. ...	Deficient 18% Solids-not-fat	Prosecution ...	Fined £2 and £3 3s. 0d. costs	
817 Rs.D. ...	Deficient 10% Fat ...	Further samples advised		
1071 R.D. ...	Deficient 40% Fat ...	Prosecution ...	Fined £2 and £4 6s. 4d. costs.	
975 S.D. ...	Deficient 23% Fat and 7% Solids-not-Fat ...	Do. ...	Fined £2 and £1 1s. 0d. costs.	
978 S.D. ...	Deficient 5½% Solids-not-fat...	None ...		Sample taken on delivery was 2% deficient in solids-not-fat.
981 S.D. ...	Deficient 2% Solids-not-fat ...	Do. ...		For comparison with 978 on delivery.
982 S.D. ...	Deficient 3½% Solids-not-fat...	Prosecution ...	Fined £5	<div>Costs £4 16s. 8d. {</div> <div>For comparison with 975 on delivery.</div>
983 S.D. ...	Deficient 3% Solids-not-fat ...	Do. ...	Fined £5	
964 L.D. ...	Deficient 5% Solids-not-fat...	Caution		
1285 H.B.D. ...	Deficient 10% Fat ...	Do.		

Number of Sample.	Nature of Adulteration.	Action taken.	Result of Prosecution.	Remarks.
862 Bn.D. ...	Deficient 16% Fat ...	None ...		"Appeal to cow" sample low.
1457 W.D. ...	Deficient 4½% Solids-not-fat...	Caution		
1467 W.D. ...	Deficient 13% Fat ...	Prosecution ...	Costs £3 19s. 6d.	
463 Lytham St. Anne's ...	Deficient 16% Fat and 9% Solids-not-fat ...	None ...		"Appeal to cow" sample low.
1118 R.D. ...	Deficient 13% Fat ...	Do. ...		Do.
1122 R.D. ...	Deficient 4½% Solids-not-fat...	Do. ...		Do.
393 C.D. ...	Deficient 10% Fat ...	Caution		
1146 R.D. ...	Deficient 12% Solids-not-fat...	Prosecution ...	Fined £5 and £3 17s. 3d. costs	
808 O.D. ...	Deficient 10% Fat ...	None ...		"Appeal to cow" sample low.
809 O.D. ...	Deficient 10% Fat ...	Do.		
1442 M.D. ...	Deficient 13% Fat and 11½% Solids-not-fat	Caution		
1446 M.D. ...	Deficient 7% Solids-not-fat ...	Do.		
458 P.D. ...	Deficient 14½% Fat ...	Prosecution ...	Fined £1 and £2 2s. 4d. costs.	
1465 M.D. ...	Deficient 13% Solids-not-fat	Caution ...		} On delivery for comparison with 1442 M.D.
1466 M.D. ...	Deficient 8½% Solids-not-fat	Do. ...		
1467 M.D. ...	Deficient 5½% Solids-not-fat	Do. ...		On delivery for comparison with 1446 M.D.
1177 R.D. ...	Deficient 4½% Solids-not-fat...	None ...		} Both supplied by vendor of No. 1190 R.D.
1189 R.D. ...	Deficient 3½% Solids-not-fat...	Do. ...		
1290 A.D. ...	Deficient 20% Fat ...	Prosecution ...	Fined £1 and £4 4s. 11d. costs	
786 Ws.D. ...	Deficient 20% Fat and 11½% Solids-not-fat	Prosecution ...	Costs £2 6s. 6d.	
1296 A.D. ...	Deficient 10% Fat ...	Caution		
986 S.D. ...	Deficient 10% Fat ...	None ...		"Appeal to cow" sample low.
980 S.D. ...	Deficient 16½% Fat ...	Prosecution ...	Fined £3 and £2 2s. 9d. costs	
991 S.D. ...	Deficient 10% Fat ...	None ...		"Appeal to cow" sample contained 3·2% Fat
1500 W.D. ...	Deficient 2% Solids-not-fat ...	Do. ...		"Appeal to cow" sample low.
1501 W.D. ...	Deficient 13% Fat ...	Do. ...		Do.
1502 W.D. ...	Deficient 3½% Solids-not-fat...	Do. ...		Do.
1503 W.D. ...	Deficient 7% Solids-not-fat ...	Do. ...		Do.
897 Bn.D. ...	Deficient 10% Fat ...	Do. ...		Do.
1190 R.D. ...	Deficient 9% Solids-not-fat ...	Prosecution ...	Fined 10s. and £3 17s. 4d. costs.	
1239 R.D. ...	Deficient 30% Fat ...	Do. ...	Fined £1 and £3 14s. 7d. costs.	
826 O.D. ...	Deficient 10% Fat ...	Caution ...		

Number of Sample.	Nature of Adulteration.	Action taken.	Result of Prosecution.	Remarks.
800 S.L.D. ...	Deficient 16% Fat ...	None ...		"Appeal to cow" sample low
802 S.L.D. ...	Deficient 10% Fat ...	Caution		
803 S.L.D. ...	Deficient 10% Fat ...	Caution		
860 Rs.D. ...	Deficient 26% Fat ...	None ...		
812 Ws.D. ...	Deficient 13% Fat ...	None ...		
986 Km.D. ...	Deficient 10% Fat ...	None ...		
987 Km.D. ...	Deficient 6½% Fat ...	None ...		
988 Km.D. ...	Deficient 13% Fat ...	None ...		Do.
989 Km.D. ...	Deficient 16½% Fat ...	Prosecution ...	Dismissed	Do.
1109 By.D. ...	Deficient 10% Fat ...	Further sample advised		
1654 M.D. ...	Deficient 10% Fat ...	Do.		
463 L.B.D. ...	Deficient 10% Fat ...	Do.		
1252 R.D. ...	Deficient 56% Fat ...	Caution		
494 Lytham Saint Anne's	Deficient 13% Fat ...	Do.		
495 Lytham Saint Anne's	Deficient 2% Solids-not-fat ...	Do.		
853 O.D. ...	Deficient 5½% Solids-not-fat...	Do.		
1584 W.D. ...	Deficient 5% Solids-not-fat ...	Do.		
499 Lytham Saint Anne's	Deficient 20% Fat ...	Do.		
500 Lytham Saint Anne's	Deficient 10% Fat ...	Caution		
504 Lytham Saint Anne's	Deficient 10% Fat ...	Do.		
508 Lytham Saint Anne's	Deficient 10% Fat ...	Do.		
961 Bn.D. ...	Deficient 10½% Solids-not-fat	Prosecution ...	Fined £5 and £5 5s. 9d. costs	
839 S.L.D. ...	Deficient 16% Fat ...	Caution		
840 S.L.D. ...	Deficient 10% Fat ...	Do.		
841 S.L.D. ...	Deficient 20% Fat ...	Do.		
842 S.L.D. ...	Deficient 6½% Fat ...	Do.		
846 S.L.D. ...	Deficient 33% Fat ...	Do.		
847 S.L.D. ...	Deficient 16% Fat ...	Do.		
1619 W.D. ...	Deficient 4½% Solids-not-fat	Do.		
40 Chorley Borough	Deficient 66% Fat ...	Further samples genuine		
986 Wgn.D. ...	Deficient 16½% Fat ...	Prosecution ...	Dismissed	
1111 L.D. ...	Deficient 7½% Solids-not-fat...	Prosecution ...	Fined £3 and £3 4s. 9d. costs	
532 Lytham Saint Anne's	Deficient 10½% Solids-not-fat	Prosecution ...	Fined £5 and £1 1s. 0d. costs	
1329 R.D. ...	Deficient 4½% Solids-not-fat...	Further samples advised		
589 West-houghton U.D.C.	Deficient 16% Solids-not-fat...	Prosecution	Fined £6 and £4 7s. 0d. costs	
590 Do ...	Deficient 15% Solids-not-fat...	Do.		
591 Do ...	Deficient 18% Solids-not-fat...	Do.		

Number of Sample.	Nature of Adulteration.	Action taken.	Result of Prosecution.	Remarks.
593 Westhoughton U.D.C. ...	Deficient 16½% Fat ...	Prosecution ...	Fined £6 and £3 6s. 0d. costs	"Appeal to cow" sample low
1440 H.B.D. ...	Deficient 7% Solids-not-fat ...	None ...		
912 Rs.D. ...	Deficient 24% Solids-not-fat...	Prosecution ...	Fined £2 and £2 2s. 9d. costs	
913 Rs.D. ...	Deficient 20% Solids-not-fat...	Do ...	Fined £2 and £2 2s. 9d. costs	
1928 M.D. ...	Deficient 7% Solids-not-fat ...	Do ...	Dismissed	
1931 M.D. ...	Deficient 6½% Fat and 3½% Solids-not-fat	Caution		
1693 W.D. ...	Deficient 4½% Solids-not-fat...	Further sample advised		
876 Ws.D. ...	Deficient 10% Fat ...	Caution		
881 Ws.D. ...	Deficient 14½% Fat ...	Prosecution ...	Fined £2 and £4 8s. 6d. costs	
1722 W.D. ...	Deficient 26½% Fat and 4½% Solids-not-fat	Do ...	Fined £1 and £3 4s. 3d. costs	
1371 R.D. ...	Deficient 13% Fat ...	Caution		
1391 R.D. ...	Deficient 16½% Fat ...	Caution		

ARTICLES OF FOOD OTHER THAN MILK.—Two thousand one hundred and sixty-two samples of food and drugs other than milk have been examined. Of these, 51, or 2·4 per cent., have been found to be adulterated. A table containing particulars in regard to these samples is given below.

No. of Sample.	Description.	Formal or Informal.	Nature of Adulteration.	Action taken.	Remarks.
11 Middleton Borough	Cream ...	Informal	5 grains per pint of boric acid	Formal sample purchased	Formal sample genuine
1269 R.D. ...	Butter ...	Do. ...	The fat contained 20% of fat foreign to butter	None ...	Further samples could not be obtained
1148 By.D....	Butter ...	Do. ...	The fat contained at least 10% of foreign fat	Formal sample purchased	Formal sample genuine
1027 Bn.D....	Margarine ...	Do. ...	Contained 0·05% boric acid ...	Formal sample purchased	Formal sample genuine
1770 M.D. ...	Suet ...	Do. ...	Contained 18% rice flour ...	Caution	
1210 L.D. ...	Do. ...	Do. ...	Contained 19% starch ...	Do.	
537 N.L.D....	Blackcurrant Jam	Do. ...	Contained 40% added fruit juice	Formal sample purchased	Formal sample genuine
1212 L.D. ...	Strawberry Jam ...	Do. ...	Contained 80 parts per million of sulphur dioxide	Formal sample purchased	Formal sample genuine
1528 M.D. ...	Sweets ...	Do. ...	Contained 0·5% tale. and 390 parts per million of sulphur dioxide	Caution	
771 Wgn.D.	Arrowroot...	Do. ...	Contained 80% foreign starch	Formal sample purchased	See No. 797 Wgn.D.
797 Wgn.D.	Do. ...	Formal ...	Contained 80% foreign starch	Prosecution ...	Dismissed on payment of £4 9s. 8d. costs.
515 L.B.D....	Do. ...	Informal	Contained 3% foreign starch	Formal sample purchased	See No. 527 L.B.D.
527 L.B.D....	Do. ...	Formal ...	Contained 3% foreign starch	Caution	
1481 H.B.D.	Pearl Barley ...	Informal	Contained 0·2% mineral facing (tale)	Caution	
1345 H.B.D.	Cornflour ...	Do. ...	Consisted of rice starch ...	None	
36 Middleton Borough	Cream Cakes ...	Do. ...	Cream consisted of an emulsion of margarine and sugar	None	

No. of Sample.	Description.	Formal or Informal.	Nature of Adulteration.	Action taken.	Remarks.
1056 By.D....	Cream Cakes ...	Informal	Cream consisted of an emulsion of margarine and sugar ...	Formal sample purchased	See No. 1068 By.D.
1068 By.D....	Do. ...	Formal ...	The cream consisted of an emulsion of butter, margarine and sugar	None	
788 Ws.D. ...	Do. ...	Informal	The cream consisted of an emulsion of margarine and sugar	Formal sample purchased	See No. 797 Ws.D.
797 Ws.D. ...	Do. ...	Formal ...	Do. ...	None	
997 S.D. ...	Do. ...	Informal	Do. ...	Formal sample purchased	See No. 1012 S.D.
1012 S.D. ...	Do. ...	Formal ...	Do. ...	None	
998 S.D. ...	Do. ...	Informal	Do. ...	Formal sample purchased	Formal sample genuine
1000 S.D. ...	Do. ...	Do. ...	Do. ...	Do. ...	Do.
410 C.D. ...	Do. ...	Do. ...	Do. ...	None	
1524 M.D. ...	Do. ...	Do. ...	Do. ...	Do.	
1299 A.D. ...	Do. ...	Do. ...	The cream contained 5 grains of boric acid per pint	Formal sample purchased	Formal sample genuine
1319 H.B.D.	Do. ...	Do. ...	Do. 10 do. ...	Do. ...	Do.
1320 H.B.D.	Do. ...	Do. ...	Do. 10 do. ...	Do. ...	Do.
797 S.L.D. ...	Do. ...	Do. ...	Do. 14 do. ...	None	
504 L.B.D....	Do. ...	Do. ...	Do. 6 do. ...	Caution	
1063 By.D....	Bicarbonate of Soda	Do. ...	Contained 1½% ground rice ...	Formal sample purchased	Formal sample genuine
1218 By.D....	Cream of Tartar ...	Do. ...	Contained 97% sodium bicarbonate	Do. ...	Do.
33 Middleton Borough	Sausages ...	Do. ...	Contained 95 parts per million of sulphur dioxide	None	
922 Wgn.D.	Do. ...	Do. ...	Contained 150 parts per million of sulphur dioxide and 14 grains per lb. of boric acid	Formal sample purchased	See No. 927 Wgn.D.
927 Wgn. D.	Do. ...	Formal ...	Contained 14 grains per lb. of boric acid	Fined £5 and £4 6s. costs	
833 O.D. ...	Do. ...	Informal	Do. 24 do. ...	Formal sample purchased	See No. 850 O.D.
850 O.D. ...	Do. ...	Formal ...	Do. 11 do. ...	Fined £5 and £4 6s. costs	
932 Km.D....	Do. ...	Informal	Contained 130 parts per million of sulphur dioxide	Formal sample purchased	See No. 971 Km.D.
971 Km.D....	Do. ...	Formal ...	Contained 125 parts per million of sulphur dioxide and 14 grains per lb. of boric acid	Fined £1 and £4 6s. 7d. costs	
1088 By.D....	Do. ...	Informal	Contained 1·4 grains per lb. of boric acid	Caution	
430 L.B.D....	Do.	Do. ...	Do. 9 do. ...	None ...	Sale of sausages abandoned
1636 M.D. ...	Do. ...	Do. ...	Contained 120 parts per million of sulphur dioxide	Caution	
891 O.D. ...	Do. ...	Do. ...	Contained 4½ grains per lb. of boric acid	Caution	
515 C.D. ...	Do. ...	Do. ...	Contained 700 parts per million of boric acid and 90 parts per million of sulphur dioxide	None	
1127 By.D....	Ground Ginger ...	Do. ...	Contained 3% extraneous mineral matter	None	
1055 Km.D.	Do. ...	Do. ...	Contained 5% chalk ...	None	

No. of Sample.	Description.	Formal or Informal.	Nature of Adulteration.	Action taken.	Remarks.
924 Wgn.D.	Lemonade Powder	Informal	Consisted largely of sugar and tartaric acid	None	
1314 R.D. ...	Rum and Coffee ...	Do. ...	Contained 2·3% rum and 30% coffee extract	Do.	
1810 M.D. ...	Ammoniated Quinine Tablets	Do. ...	Deficient 90% Ammonia and 60% Quinine Sulphate	Formal sample purchased	Sec No. 1910 M.D.
1910 M.D. ...	Do. ...	Formal ...	Deficient 95% Ammonia and 60% Quinine Sulphate	Prosecution ...	Fined £2 and £2 18s. 4d. costs

TABLE 16. SAMPLES ANALYSED IN THE VARIOUS POLICE DIVISIONS OF THE ADMINISTRATIVE COUNTY UNDER THE SALE OF FOOD AND DRUGS ACTS DURING THE YEAR 1928.

POLICE DIVISION.	MILK.		OTHER ARTICLES OF FOOD.		DRUGS.		TOTAL.		Per-centage of Adulter-ation.
	Samples.	Adulter-ated.	Samples.	Adulter-ated.	Samples.	Adulter-ated.	Samples.	Adulter-ated.	
Lonsdale North ...	74	0	58	1	0	0	132	1	0·8
Lonsdale South ...	72	11	57	1	0	0	129	12	9·3
Garstang ...	57	0	33	0	0	0	90	0	0·0
Kirkham ...	74	6	141	3	5	0	220	9	4·1
Blackburn Lower ...	95	1	109	4	0	0	204	5	2·4
Blackburn Higher ...	146	2	160	4	5	0	311	6	1·9
Church ...	95	2	79	2	0	0	174	4	2·3
Rossendale ...	110	4	25	0	0	0	135	4	3·0
Leyland ...	151	2	136	2	5	0	292	4	1·4
Bolton ...	149	3	121	1	16	0	286	4	1·4
Bury ...	108	1	141	7	17	0	266	8	3·0
Rochdale ...	242	12	109	2	7	0	358	14	3·9
Ashton-under-Lync ...	120	2	110	1	1	0	231	3	1·3
Manchester ...	259	8	282	4	52	2	593	14	2·4
Seaforth ...	99	8	93	4	0	0	192	12	6·2
Ormskirk ...	101	4	23	3	0	0	124	7	5·6
Prescot ...	97	1	24	0	2	0	123	1	0·8
Widnes ...	79	4	72	2	0	0	151	6	4·0
Warrington ...	221	10	101	0	0	0	322	10	3·1
Wigan ...	194	1	146	5	2	0	342	6	1·7
County Police ...	2543	82	2020	46	112	2	4675	130	2·8
*Local Authorities ...	226	13	29	3	1	0	256	16	6·2
Private Purchasers ...	2	0	0	0	0	0	2	0	0·0
Totals ...	2771	95	†2049	49	113	2	4933	146	3·0
Percentage of Adulterated Samples ...	3·4%		2·4%		1·8%		3·0%		...

* The 256 samples taken by Local Authorities include :—Boroughs of Chorley 8, Darwen 7, Leigh 2, Lytham Saint Anne's 95, Middleton 74, Urban Districts of Chadderton 6, Farnworth 8, Oswaldtwistle 5, Westhoughton 51.

† The 2049 miscellaneous articles analysed comprised :—Arrowroot, 40 ; baking powder, 68 ; barley, 19 ; bi-carbonate of soda, 41 ; butter, 143 ; cakes, 48 ; cream cakes, 82 ; cake flour 15 ; cheese, 110 ; cocoa, 39 ; coffee, 142 ; condensed milk, 26 ; cooked meat 13 ; cornflour, 24 ; cream, 15 ; cream of tartar, 45 ; custard powder, 22 ; egg powder, 15 ; fish and meat paste, 52 ; fish and fruit (canned), 20 ; gravy browning, 16 ; ground almonds, 18 ; ground ginger, 80 ; ground rice, 29 ; jam, 46 ; jelly, 19 ; lard, 139 ; lemon cheese, 10 ; margarine, 115 ; mustard, 15 ; oatmeal, 10 ; pepper, 122 ; rice, 16 ; sago, 19 ; sauce and pickles, 11 ; sausages, 88 ; self-raising flour, 14 ; sugar, 36 ; sweets, 91 ; tapioca, 15 ; tea, 59 ; various other articles 102.

TABLE 17—PROSECUTIONS ARISING OUT OF SAMPLES PURCHASED
DURING THE YEAR 1928.

POLICE DIVISION.	Samples reported for Prosecution.	Number of Prosecutions.	Convicted or Ordered to Pay Costs.	Dismissals.	Fines and Costs.
					£ s. d.
Lonsdale North.....	...	...	...	...	...
Lonsdale South.....	1	1	1	...	5 3 0
Garstang.....	...	...	...	...	...
Kirkham.....	3	2	1	1	5 6 7
Blackburn Lower.....	...	...	...	...	...
Blackburn Higher.....	...	...	...	...	...
Church	2	1	...	1	...
Rossendale	2	2	2	...	8 5 6
Leyland	2	1	1	...	5 4 9
Bolton.....	1	1	1	...	10 5 9
Bury	1	...	...	...	...
Rochdale.....	7	4	4	...	24 5 6
Ashton-under-Lyne	1	1	1	...	5 4 11
Manchester.....	3	2	1	1	4 18 4
Seaforth	5	4	4	...	23 0 5
Ormskirk	2	1	1	...	9 6 0
Prescot	1	1	1	...	3 2 4
Widnes	3	2	2	...	8 15 0
Warrington.....	4	2	2	...	8 3 9
Wigan	3	3	2	1	13 15 8
County Police	41	28	24	4	134 17 6
Local Authorities	5	5	5	...	25 14 0
Totals	46	33	29	4	160 11 6

FOOD AND DRUGS (ADULTERATION) ACT, 1928.—With the close of the year 1928, most of the Acts dealing with the Adulteration of Foods were repealed and their place taken by the Food and Drugs (Adulteration) Act, 1928, which was apparently intended to consolidate the whole of the existing legislation on the subject. This Act came into operation on the first day of January, 1929.

WATER ANALYSES.—Of the 124 samples of water which have been examined during the year, 57 have been examined to ascertain their fitness or otherwise for drinking or other domestic use. The results obtained are set out in the following table :—

Source.				Fit.	Unsafe or Doubtful.	Unfit.	Total.
Shallow Wells	...	...	...	4	3	1	8
Deep Wells...	...	...	...	6	6	5	17
Springs	...	...	...	4	1	...	5
Upland Surface	...	...	...	2	2	...	4
Public Supplies	...	...	...	18	2	...	20
Pit Shaft	...	...	...	1	1	1	3
Totals ...				35	15	7	57

Samples of water were received from the following districts :—
Boroughs.—Chorley, Darwen, Haslingden, Morecambe and Heysham, and Widnes.
Urban Districts.—Ashton-in-Makerfield, Carnforth, Grange-over-Sands, Great Crosby, Horwieh, Leyland and Preesall.
Rural Districts.—Chorley, Clitheroe, Fylde, Lancaster, Lunesdale, Whiston and Warrington.

Samples were also received from the County Medical Officer of Health, the Central Tuberculosis Officer, and the County Architect.
It will be observed that of the 57 samples received, seven were definitely unfit, whilst 15 were of doubtful quality, but of these only two were public supplies, and these would be made quite fit by treatment. It cannot be considered satisfactory, however, that of the 34 samples of supplies to single houses, six should be definitely unfit and twelve of doubtful quality. In the following table, the whole of the samples received during the last 17 years have been grouped. In all, 788 samples have been examined, and of these 21·3 per cent. have been of doubtful quality, whilst 21·7 per cent. have been definitely unfit.

WATERS 1912–1928.

Source.				Fit.		Unsafe or Doubtful.		Unfit.	
				Total Samples.	No. of Samples.	Perecentage.	No. of Samples.	Perecentage.	No. of Samples.
Public Supplies	...	...	...	72	69	95·8	2	2·8	1
Deep Wells	...	...	...	68	47	69·1	11	16·2	10
Shallow Wells	...	...	...	348	113	32·4	104	30·0	131
Springs	...	...	...	122	90	73·8	23	18·8	9
Upland Surface	...	...	...	38	28	73·7	9	23·7	1
Miscellaneous	...	...	...	140	102	72·8	19	13·6	19
Totals ...				788	449	57·0	168	21·3	171

ACTION BY TOWN AND DISTRICT COUNCILS.—Nine Boroughs and 5 Urban Districts report some action in 1928 under the Sale of Food and Drugs Acts. Three Boroughs took some steps under the Condensed Milk Regulations, two Boroughs acted under the Dried Milk Regulations, and five Boroughs under the Preservatives in Food Regulations. Eleven local authorities submitted articles of food for bacteriological examination.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

Notifications of Infectious Diseases.—Table 18, pages 106 to 119, gives the number of cases of infectious disease notified in each urban and rural district in the Administrative County during the year 1928, under the Infectious Disease (Notification) Act, 1889, the Public Health (Tuberculosis) Regulations, and under various other Regulations and Orders.

ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 18, showing HOSPITAL ACCOMMODATION and DISINFECTING APPARATUS provided in or for each of the County Districts ; also NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED, REMOVED TO HOSPITAL, &c., during the year 1928.

(a) (c) (d) Totals supplied by local Medical Officers of Health; (b) by Registrar-General.

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																		Disinfection.	No. of houses or rooms disinfected.							
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																										
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Acute Influenzal Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis	Malaria (contracted abroad).	Chicken-pox.			Measles (excluding German Measles).	Whooping Cough.	Diarrhoea (under 2 years).	Total.			
*Abram	...	8 beds	...	Iron building—4 beds	(a)	30	3	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	91	
Accrington (B)	...	At Blackburn C.B. Hospitals	(b)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
Adlington	...	Iron building—24 beds	(c)	76	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	377
			(d)	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	85
			(a)	18	2	31			
			(b)	7	1	1			
Chorley (B)	...	Joint at Heath Charnock, 36 beds	(a)	19	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	67
			(b)	8			
			(c)		
			(d)		
Leyland	...	5 beds at Finnington (Blackburn)	(a)	77	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	247
			(b)	...	2	69			
			(c)	75	6	81		
			(d)		
Chorley (R)	...	Joint at Heath Charnock, 36 beds	(a)	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48
			(b)	19		
			(c)	21	21		
			(d)	
Chorley (R)	...	Joint at Heath Charnock, 36 beds	(a)	61	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	147
			(b)	...	3	38		
			(c)	58	11	71	
			(d)	1	1	2	
*Ashton-in-Makerfield	...	40 beds (Long Lane)	(a)	34	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	248
			(b)	...	1	57	
			(c)	31	14	46
			(d)	...	1	1

* Districts with asterisks combined in 1903 under the Wigan and District Joint Hospital Order for the purpose of providing a smallpox hospital, but no provision made. † Inward transfers.
† Cases not notified. ‡ Deaths now classified by Registrar-General as "Tuberculosis of respiratory system." Tuberculosis cases removed to Hospital or Sanatoria not shown under (c) and (d).
§ Acute primary pneumonia and other acute infectious diseases.

DISTRICT.		For ordinary infectious diseases.	For Smallpox.	Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																	Disinfection.										
				Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Influenza Pneumonia.	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	§Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diphtheria (under 2 years).	Total.	Apparatus and where situated.	No. of houses or rooms disinfected.					
Ashton-under-Lyne (B)	...	20 beds ...	...	(a)	12	80	27	4	100	9	1+	...	2	...	2	2	...	41	33	...	19	...	...	...	...	350	Steam—Town's Yard	463		
				(b)	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		141		
				(c)	12	52	10	4	5	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	90	
				(d)	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	5	
Audenshaw	...	2 beds, Hyde Borough Hospital	Joint at Harts-head—12 beds	(a)	2	6	1	...	9	...	...	1	...	...	...	...	4	9	5	...	6	...	...	...	...	43	Steam—Ashton-under-Lyne (B)	14		
				(b)	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	12	
				(c)	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	4	
				(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...
Limehurst (R)	...	Nil	Joint at Harts-head—12 beds	(a)	1	4	11	...	21	4	1+	...	1	1	4	2	8	9	...	...	...	...	...	...	66	Steam—Ashton-under-Lyne (B)	12			
				(b)	...	...	...	8	1	2+	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	21	
				(c)	...	...	...	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	5	
				(d)	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	1	
*Aspull	...	At Wigan C.B. Hospital	Arrangement with Bury Joint	(a)	7	4	3	...	35	1	...	...	...	...	...	...	13	6	6	...	37	...	...	...	112	Steam—Hospital	...			
				(b)	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	20	
				(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	8	
				(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	1	
Atherton	...	}	}	(a)	13	97	40	...	66	9	...	3	...	...	3	10	19	15	...	34	...	...	...	...	309	Steam—Hospital	...			
				(b)	...	...	...	26	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	50
				(c)	12	73	35	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	123
				(d)	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	3
Golborne	...	}	}	(a)	...	9	2	2	8	1	...	...	...	...	...	3	9	3	3	...	7	...	...	...	...	44	Steam—Portable	...		
				(b)	...	...	...	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	10
				(c)	...	8	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	10
				(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...
Leigh (B)	...	}	}	(a)	59	282	52	...	71	4	2	...	...	...	13	34	48	34	...	...	...	...	...	...	601	Steam — At Refuse Destructor	438			
				(b)	1	...	1	...	48	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	133
				(c)	57	227	44	330
				(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	2
Tyldesley-with-Shakerley	...	}	}	(a)	6	126	38	1	50	1	...	...	...	...	1	7	10	11	...	79	270	...	...	...	600	Steam—Hospital	...			
				(b)	...	...	2	...	24	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	39
				(c)	6	105	28	139
				(d)	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	1
Leigh (R)	...	}	}	(a)	2	74	26	...	20	2	...	...	...	...	3	10	2	9	...	5	...	...	...	...	153	No proper apparatus	127			
				(b)	...	...	...	9	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	19
				(c)	2	52	23	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	78
				(d)	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	1

† At Leigh (B)—2 inward transfers. ‡ At Limehurst (R)—1 case not notified.

TABLE 18—continued.

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																Disinfection.		No. of houses or rooms disinfected.						
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																								
			Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Influenza Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis	Malaria (contracted abroad).	Chicken-pox.				Measles (excluding German Measles).	Whooping Cough.	Diphtheria (under 2 years).	Total.		
Bacup (B)	...	For Smallpox.	...	8	15	5	57	3	1+	9	19	13	7	...	69	207	Steam—Town's Yard	122		
Barrowford	...	Arrangement with Bury Joint Hospital Board	(a)	2	2	2	1	1	1	2	2	1	2	11	Steam—Nelson (B)	19	
*Billinge-and-Winstanley	...	At Nelson Borough Hospitals by arrangement	(b)	...	1	...	3	10	Steam—Billinge Infirmary	16	
	...	Nil	(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
	(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	Cottage—4 beds	(a)	4	1	...	10	...	...	...	...	...	...	...	11	3	4	...	...	...	...	...	23	
*Blackrod	Nil	(b)	Steam—Hospital	8	
	(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(a)	5	1	...	7	...	...	...	...	...	...	1	5	1	1	...	...	...	...	...	21			
*Horwich	Joint at Fall Birch, Horwich, 48 beds	(b)	6	Steam—Hospital	93	
	(c)	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	Bury and District Joint Hospital	(a)	11	25	...	61	1	...	1	...	...	...	2	4	13	14	1	148	20	...	55	...	356
*Westhoughton	...	At Manchester C.B.	(b)	...	2	...	11	1	2	Steam—Hospital	52	
	(c)	11	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d)
	(a)	43	5	1	42	3	1	...	...	...	...	12	17	9	3	...	...	...	...	...	...	138		
Brierfield	(b)	...	2	...	18	...	1	Steam—Nelson (B)	23	
	(c)	32	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d)	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(a)	16	5	...	9	...	...	...	...	...	...	4	6	1	29	...	...	...	...	...	70			
Padiham	Joint with Burnley C.B. for all purposes (Kibble Bank) 116 beds	(b)	...	2	...	6	Steam—Burnley C.B.	377	
	(c)	8	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(a)	72	53	2	17	6	...	...	...	...	...	10	14	11	109	...	...	...	...	...	453			
Burnley (R)	(b)	1	3	1	9	1	Steam—Burnley C.B.	97	
	(c)	47	47	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d)	1	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(a)	42	22	1	23	2	...	...	...	...	...	6	14	8	53	...	...	...	...	...	183			

[illegible]

TABLE 18—continued.

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																			Disinfection.		No. of houses or rooms disinfectcd.	
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																						
	For ordinary infectious diseases.	For Smallpox.	Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Influenza Pneumonia	Puerperal Fever, and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diphtheria (under 2 years).	Total.		
Dalton-in-Furness	Joint at High Carley—40 beds	Arrangement with Kendal Joint Hospital 4 beds	(a)	14	5	...	...	...	2	...	...	2 ⁺	7	21	9	...	...	...	...	...	3	58	
Ulverston...			(b)	...	1	...	4	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	28
Ulverston (R)			(c)	13	4	5	17
			(d)	...	1	10	1
Darwen (B)	34 beds	3 beds at Finnington (Blackburn)	(a)	39	4	1	...	...	...	...	...	1	...	...	6	5	10	...	...	...	...	...	...	66
			(b)	...	...	...	5	...	...	...	...	...	...	...	...	...	...	4	5	...	...	...	...	18
			(c)	34	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
			(d)
Denton	4 beds, Hyde Borough Hospital	2 beds, Hyde	(a)	50	15	2	2	1	...	...	...	1 ⁺	...	1	3	17	10	...	...	...	...	...	...	101
			(b)	...	2	...	8	...	...	...	...	...	...	...	...	...	...	15	2	...	...	...	...	28
			(c)	49	14	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65
			(d)	...	1	1
Droylsden	3 beds, Hyde Borough Hospital	1 bed, Hyde	(a)	19	2	1	92	8	...	...	4	...	1	11	23	6	...	...	...	...	...	...	...	167
			(b)	...	...	...	42	3	...	...	...	...	3	...	...	...	...	19	4	...	...	1	...	73
			(c)	12	1	1	32	3	59
			(d)	6	3	2	11
Eccles (B)	20 beds, Salford C.B. Hospital	6 beds, Salford	(a)	32	21	1	35	1	1 ⁺	...	1	...	...	...	14	10	7	...	...	...	...	...	...	122
			(b)	...	1	...	12	...	...	...	...	...	...	...	...	...	...	10	3	...	...	...	...	30
			(c)	4	8	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14
			(d)	...	1	2
Failsworth...	At Oldham C.B. Hospital and at Monsall (Manchester) for puerperal fever cases.	Chadderton, &c., Joint Board—2 beds	(a)	29	14	1	34	2	...	...	...	...	3	6	13	11	...	...	...	...	...	...	113	
			(b)	...	1	...	13	...	...	...	...	...	...	...	...	...	...	7	1	...	...	...	...	24
			(c)	7	4	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13
			(d)	...	1	1
Farnworth	Arrangement with Salford C.B. and Leigh Joint Hospitals.	At Bury, &c., Joint Hospital	(a)	179	45	...	114	4	...	1	...	...	...	6	19	43	26	1	149	727	263	...	1578	
			(b)	...	1	2	30	2	...	...	...	...	...	...	...	...	...	22	9	...	...	6	2	81
			(c)	23	45	2	76
			(d)	...	2	1	3
Farnworth	At Bury, &c., Joint Hospital	At Bury, &c., Joint Hospital	(a)	21	52	4	71	8	1	...	...	...	1	5	10	19	8	...	...	...	...	...	...	204
			(b)	...	...	...	18	...	...	...	...	...	...	...	...	...	...	8	3	...	...	...	...	45
			(c)	10	20	1	...	8	1	41
			(d)	1	1
Farnworth	At Bury, &c., Joint Hospital	At Bury, &c., Joint Hospital	(a)	126	23	...	71	11	3	...	...	...	...	...	41	19	18	...	10	...	...	...	...	323
			(b)	...	3	...	31	1	...	...	...	...	...	...	...	...	16	6	...	...	...	...	...	59
			(c)	68	15	2	...	1	85
			(d)	...	2	1	3

Nature of Hospital Accommodation.		Infectious Diseases.														Disinfection.												
DISTRICT.	For ordinary infectious diseases.	For Smallpox.	Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.														Apparatus and where situated.	No. of houses or rooms disinfected.										
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Group).	Enteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.			Other forms of Tuberculosis	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diphtheria (under 2 years).	Total.			
Fleetwood	...	Joint at Elswick 29 beds	(a) 4	60	3	1	23	5	...	...	...	...	3	10	36	17	...	...	38	...	...	...	200	Steam—Town's Yard	165
			(b) 1	...	1	...	15	...	...	...	...	...	...	...	14	6	...	...	...	...	2	3	45		
			(c) 4	34	1	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	42		
			(d) 1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2		
Kirkham		Joint at Moss Side, 48 beds and 12 cots	(a) ...	12	...	1	2	1	8	1	25	No proper apparatus	28		
				(b)	4	1	5	10				
				(c) ...	12	...	1	...	1	14				
				(d)	1	1				
Lytham Saint Anne's (B)	Joint at Fulwood 45 beds			Joint at Elswick 29 beds	(a) ...	35	17	4	15	1	1	14	1	32	11	150	282	Steam—At Refuse Destructors	296	
						(b)	1	8	16	4	1	...	30			
						(c) ...	19	17	1	37		
						(d)	1	1		
Poulton-le-Fylde					(a) ...	9	3	...	2	6	20	No proper apparatus	16	
					(b)	1	2			
					(c) ...	9	12			
					(d)		
Thornton Cleveleys			(a) ...		23	7	...	8	1	2	7	7	22	78	Steam—Council's Yard	36	
			(b) ...		1	2	...	5	3	1	13			
			(c) ...		13	6	19			
			(d) ...		1	2	3			
Fylde (R)...	...	Joint at Fulwood 45 beds	(a) ...	49	9	1	9	...	...	...	...	...	...	4	1	14	7	...	...	...	...	...	94	No proper apparatus	62
			(b) ...	1	...	...	7	1+	...	...	...	...	...	...	...	4	...	...	...	...	...	...	15		
			(c) ...	46	8	1	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	58		
			(d) ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		
Fulwood ...	...		(a) ...	29	12	1	...	7	...	...	...	...	...	...	8	4	...	...	...	...	...	...	72	Steam—Hospital	38
			(b) ...	...	...	...	4	...	...	...	...	...	...	...	3	1	...	...	...	...	...	...	8		
			(c) ...	19	12	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38		
			(d)				
Longridge	...		(a) ...	17	...	...	...	...	...	...	...	...	...	...	...	1	5	...	...	...	...	...	23	Steam—Hospital	19
			(b) ...	...	...	...	4	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	10		
			(c) ...	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16		
			(d)				
Preston (R)	...	(a) ...	69	15	1	9	6	...	...	...	...	...	...	3	31	12	...	...	46	...	...	...	194	No proper apparatus	135
		(b) ...	...	2	...	25	2	...	...	...	...	...	...	...	10	3	...	...	1	...	...	...	42		
		(c) ...	59	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	75		
		(d) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE 18—continued.

Nature of Hospital Accommodation.		Infectious Diseases.																			Disinfection.	No. of houses or rooms disinfectcd.	
		Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																					
DISTRICT.	For ordinary infectious diseases.	For Smallpox.	Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diphtheria (under 2 years).	Total.
Precsall ...	At Blackpool C.B. Hospital	Joint at Elswick (see previous page).	(a) ...	4	1	...	1	1	...	...	...	...	...	...	2	1	...	...	...	54	...	...	64
			(b) ...	...	...	...	4	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	7
			(c) ...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
			(d) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Garstang (R) ...	Other Authorities take cases of infectious disease by arrangement		(a) ...	18	1	1	3	1	...	...	...	...	...	...	5	10	9	...	...	...	...	2	48
			(b) ...	...	...	1	8	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...	15
			(c) ...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
			(d) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Formby ...	At Bootle C.B. Hospitals ...	...	(a) ...	16	3	...	5	...	...	...	...	...	...	...	3	7	3	...	...	...	...	...	37
			(b) ...	1	1	...	3	...	...	...	...	...	...	...	...	4	...	...	...	...	1	...	13
			(c) ...	10	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
			(d) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grange-over-Sands	At Kendal Borough Hospital	Arrangement with Kendal Joint Hospital	(a) ...	9	1	...	...	...	...	...	...	1	...	...	...	7	...	...	...	...	...	...	18
			(b) ...	...	...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	4
			(c) ...	7	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
			(d) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Great Crosby ...	At Liverpool C.B. Hospitals	...	(a) ...	22	23	16	33	3	...	...	...	1	...	...	2	14	6	...	...	...	49	...	169
			(b) ...	...	1	...	14	...	...	...	...	1	...	...	...	7	...	...	...	1	...	...	24
			(c) ...	13	19	5	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	38
			(d) ...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2
Great Harwood ...	Nil	Agreement with Blackburn C.B. —2 beds	(a) ...	1	29	...	...	2	...	...	...	2	...	...	2	5	5	...	...	1	...	...	47
			(b) ...	...	2	...	9	1	...	...	...	2	...	...	...	3	2	...	...	...	1	...	21
			(c) ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
			(d) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Haslingden (B) ...	Agreement with Bury and District Joint Hospital Board	...	(a) ...	2	19	6	1	1	...	...	...	1	...	...	5	7	5	...	...	...	...	...	68
			(b) ...	...	2	1	13	1	...	...	...	...	...	...	...	5	1	...	...	...	...	1	24
			(c) ...	...	3	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
			(d) ...	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Haydock ...	10 beds at St. Helens C.B. Hospital	St. Helens Smallpox Hospital—3 beds	(a) ...	60	5	...	30	1	...	...	...	1+	...	...	3	13	7	...	...	8	...	...	132
			(b) ...	...	...	...	6	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	19
			(c) ...	53	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	61

Nature of Hospital Accommodation.		Infectious Diseases.														Disinfection.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
DISTRICT.	For ordinary infectious diseases.	For Smallpox.	Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Group).	Euteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough	Diarrhoea (under 2 years).	Total.	Apparatus and where situated.	No. of houses or rooms or rooms disinfect.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
			(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)			(b)	(c)	(d)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Heywood (B)	At Rochdale C.B. Hospital (Marland)	At Bury, etc., Joint Hospital	...	196	40	...	26	6	4	12	28	21	...	345	678	Steam—Sewage Works	253																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			2	...	27	1</

† At Ince-in-Makerfield—2 inward transfers and 1 case not notified.

TABLE 18—continued.

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																Disinfection.	No. of houses or rooms disinfected.					
			Note.—(a) Cases notified. (b) Total Deaths. (c) Removals to hospital. (d) Deaths in hospital.																						
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Euteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	§Pulmonary Tuberculosis.	Other forms of Tuberculosis	Malaria (contracted abroad).			Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diarthra (under 2 years).	Total.
Lees ...	For ordinary infectious diseases.	For Smallpox.	(a) ... (b) ... (c) 1 (d) ...	7 ... 1 ...	6 2	13 8	2	1	5	2 1	5 2 1 ...	41 13 1 ...	No proper apparatus	19
Litherland ...	At Oldham C.B. Hospital	Arrangement with Chadderton, etc., Joint Hospital	(a) ... (b) ... (c) 23 (d) ...	29 ... 23 ...	29 2 26 1	2	5 15	6 ... 1 ...	... ... ... ...	... ... ... ...	... ... ... ...	1 ... 1 ...	... ... ... ...	5 ... 5 ...	52 15	13 3 ... ...	... ... ... ...	... ... ... ...	... 3 ... ...	... 5 ... ...	... 4	147 47 56 1	Steam—Council's Dépôt	113
Littleborough ...	Joint at Smithy Bridge—16 beds	At Bury, etc., Joint Hospital	(a) 1 (b) ... (c) 1 (d) ...	22 ... 20 ...	14 1 11 ...	... ... ... ...	2 7 ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	1 1 ... ...	... ... ... ...	5	10 3	1 2 ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	56 14 32 ...	Steam—Hospital	45
Milnrow ...			(a) ... (b) 2† (c) ... (d) ...	19 ... 18 ...	8 ... 7	10 4	1 1	1	2	1	4 9	4 1	50 17 25 ...	No proper apparatus	36
Wardle ...			(a) 17 (b) ... (c) 17 (d) ...	13	11 1 11 1 3	2	1†	1	1 1	3 1	49 7 28 1	Steam—Hospital	15
Little Crosby ...	At Liverpool C.B. Hospitals	...	(a) ... (b) ... (c) ... (d) ...	... ... ... ...	1 ... 1 ...	1 ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	1 ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	3 ... 1 ...	Steam—Liverpool	2
Little Hulton ...	At Bolton C.B. Hospital and at Leigh Joint Hospital	Salford ...	(a) ... (b) ... (c) ... (d) ...	22 ... 9 ...	8 ... 3 ...	... ... ... ...	2 6	1 2 1 1	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	1	2	6 5	5 4 ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	47 17 13 1	Steam—Hospital	36
Little Lever ...	At Bury, etc., Joint Hospitals	...	(a) ... (b) ... (c) ... (d) ...	9	3 ... 3 ...	... ... ... ...	14 5 1 1	2 ... 2 ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	1	2	4 2	3 ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	43 7 6 1	No proper apparatus	16
Middleton (B) ...	At Rochdale C.B. Hospital	At Chadderton, etc., Joint Hospital	(a) ... (b) ... (c) ... (d) ...	67 ... 32 ...	27 1 12 1	53 18	2 2	2†	2	11	15 19	6 3	256 1	439 46 44 1	Steam—Centre of Town	110

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																	Disinfection.		No. of houses or rooms disinfected.			
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																						
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Primary Pneumonia.	Puerperal Fever, and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.				Measles (excluding German Measles).	Whooping Cough.	Diarthra (under 2 years).	Total.
Morecambe and Heysham (B)	35 beds and 3 cots	5 beds	(a)	42	6	1	26	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	116
			(b)	...	...	...	12	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
			(c)	34	3	...	14	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53
			(d)	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Mossley (B)	Nil	At Ashton-under-Lyne Joint Hospital	(a)	8	7	...	24	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	120
			(b)	...	1	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
			(c)	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
			(d)
Nelson (B)	12 beds (Catlow)	32 beds (Catlow)	(a)	34	11	3	38	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	235
			(b)	...	2	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53
			(c)	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
			(d)
Newton-in-Makerfield	26 beds	At Liverpool C.B. Hospital	(a)	63	18	...	73	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	296
			(b)	...	1	...	16	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
			(c)	59	16	...	7	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	89
			(d)	...	1	...	4	1	7
Norden	Nil	Agreement with Bury Joint Hospital	(a)	6	2	...	6	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
			(b)	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
			(c)	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
			(d)
*Orrell	Cases sent to Wigan C.B., in exceptional circumstances.	At Ince-in-Makerfield.	(a)	5	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28
			(b)	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
			(c)
			(d)
Oswaldtwistle	Cases sent to Blackburn C.B. No agreement	62 beds	(a)	25	17	1	24	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	222
			(b)	...	1	1	13	1	2†	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
			(c)	4	11	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	77
			(d)	...	1	1	...	1	1	5
Prescot	At Whiston Sanatorium	...	(a)	46	12	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	88
			(b)	...	...	...	11	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19
			(c)	22	5	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29
			(d)
Prestwich...	Agreement with Bury and District Joint Hospital Board	At Salford Small-pox Hospital	(a)	43	16	5	17	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	119
			(b)	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
			(c)	29	16	46
			(d)	1

TABLE 18—continued.

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																			Disinfection.		No. of houses or rooms disinfectcd.		
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																							
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Influenza Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diarrhoea (under 2 years).	Total.			
Radcliffe ...	For ordinary infectious diseases.	For Smallpox.	(a)	112	65	...	70	3	...	...	...	1	...	1	14	21	13	...	23	...	...	...	323	...	232	
(b)			8	2	1†	25	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	55	...		
(c)			93	65	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	164		...
(d)			3	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6		...
Ramsbottom ...	At Hospitals of the Bury and District Joint Hospital Board :—	90 beds	(a)	1	18	10	...	17	4	...	...	...	...	...	8	16	9	...	109	...	...	...	193	...	40	
(b)			...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16		...
(c)			1	15	9	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	29		...
(d)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Tottington ...	40 beds	90 beds	(a)	4	30	15	...	18	4	...	...	...	...	...	5	4	4	...	79	...	...	...	166	...	57	
(b)			...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8		...
(c)			...	17	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35		...
(d)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Whitefield ...			(a)	...	15	16	...	19	1	...	...	1	...	...	4	7	5	...	...	...	...	...	72	...	39	
(b)			...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16		...
(c)			...	11	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25		...
(d)			...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...
Bury (R) ...			(a)	...	26	10	...	20	...	...	...	...	...	...	5	2	4	...	68	...	...	...	134	...	70	
(b)			...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10		...
(c)			...	20	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30		...
(d)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Rainford ...	Agreement with St. Helens C.B.	Agreement with Liverpool C.B.	(a)	...	12	1	...	6	...	...	...	...	...	...	5	5	5	...	...	...	...	...	34	...	5	
(b)			...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7		...
(c)			...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7		...
(d)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Rawtenstall (B) ...	Arrangement made with Bury and District Joint Hospital Board	27 beds (The Ridge)	(a)	35	22	11	1	33	1	...	...	1	...	...	21	26	22	...	...	...	...	...	174	...	99	
(b)			...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	49		...
(c)			35	...	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40		...
(d)			...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2		...
Rishton ...	Can send to Blackburn C.B.	At Oswaldtwistle by agreement	(a)	5	1	4	...	21	...	...	...	...	...	...	2	9	1	...	63	...	...	...	106	...	66	
(b)			...	...	...	3	...	...	...	...	...	...	...	...	...	...	7	1	...	...	...	...	...	13		...
(c)			5	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6		...
(d)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Skelmersdale ...	Arrangement with West Lancashire R.D.	Agreement with Liverpool C.B.	(a)	...	3	2	...	10	1	...	...	...	...	...	1	4	4	...	...	...	...	...	26	...	11	
(b)			...	...	...	4	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	8		...
(c)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4		...

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																Disinfection.		No. of houses or rooms disinfected.			
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																					
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	§Pulmonary Tuberculosis.	Other forms of Tuberculosis	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.	Diphtheria (under 2 years).	Total.	
*Standish-with-Langtree	Cases are sent to Wigan C.B. Hospitals by arrangement	Agreement with Blackburn C.B.	(a)	15	9	1	24	1+	...	...	...	1	...	9	5	5	...	51	...	...	...	...	120
			(b)	...	...	...	7	1+	...	...	...	...	...	...	...	4	3	...	...	...	...	1	17
			(c)	1
			(d)	1
Stretford ...	At Salford C.B. Hospitals	...	(a)	229	31	1	100	11	...	1	...	4	...	6	84	31	...	...	...	...	...	...	514
			(b)	1	2	...	45	...	...	...	4	...	...	...	...	41	6	...	...	4	2	4	109
			(c)	112	20	...	...	1	...	1	...	1	...	...	2	...	...	...	...	...	...	...	137
			(d)	1
Swinton and Pendlebury	At Salford C.B. Hospital	Joint at Linnyshaw Moss—18 beds	(a)	6	164	12	1	134	4	...	...	6	...	19	37	14	1	212	...	...	...	...	610
			(b)	2	1	...	23	...	...	4	...	...	...	...	...	17	3	...	...	7	1	...	58
			(c)	6	90	7	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	106
			(d)	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Worsley ...	At Salford C.B. Hospital	...	(a)	...	50	4	1	8	3	...	...	...	...	5	9	4	...	19	...	...	...	...	103
			(b)	...	...	...	9	1	...	...	...	...	...	...	...	8	2	...	...	...	...	...	20
			(c)	28	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
			(d)	1	1
Trawden ...	At Colne Borough Hospitals	...	(a)	1	6	3	1	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	14
			(b)	...	...	1	3	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	6
			(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
			(d)
Turton ...	At Bury, etc., Joint Hospital	2 beds (Bury, etc., Joint Hospital)	(a)	...	35	4	...	13	1	...	...	...	1	4	6	5	...	...	...	...	...	...	69
			(b)	...	...	...	10	...	...	...	...	...	...	...	...	7	...	...	...	...	1	1	20
			(c)	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
			(d)	1	1
*Upholland	At Wigan C.B. Hospital	Nil	(a)	2	2	1	4	...	...	...	...	...	1	9	5	2	...	4	...	...	...	...	30
			(b)	...	...	1	5	...	...	...	...	...	...	...	...	3	2	...	...	...	...	...	12
			(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(d)
Urmston ...	At Salford C.B. Hospitals	(2 beds)	(a)	60	3	1	6	...	...	...	...	1+	...	...	6	1	...	4	...	...	...	...	82
			(b)	...	...	1	5	...	...	...	...	...	...	...	...	7	1	...	...	...	...	...	15
			(c)	41	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43
			(d)
Walton-le-Dale ...	20 beds (School Lane)	8 beds (Bradkirk)	(a)	62	6	...	6	3	...	...	...	1	...	2	16	10	...	...	...	...	...	...	163
			(b)	...	...	...	13	...	...	...	1	...	...	...	10	1	...	...	...	...	...	...	26
			(c)	56	6	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	63
			(d)

DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																		Disinfection.	No. of houses or rooms disinfected.			
			Note.—(a) Cases notified. (b) Total Deaths. (c) Removals to hospital. (d) Deaths in hospital.																						
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Group).	Etiotic Fever (including Paratyphoid).	Acute Influenza Pneumonia.	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).			Whooping Cough.	Diphtheria (under 2 years).	Total.
Waterloo-with-Seaforth	For ordinary infectious diseases.	For Smallpox.	...	83	41	10	71	3	...	...	...	1	...	3	11	54	16	1	...	244	...	4	542		
Whitworth	Arrangement with Rochdale C.B.	At Bury, &c., Joint Hospital	(a)	...	...	...	23	1	...	...	...	...	...	...	7	10	6	...	10	...	...	...	65		
			(b)	...	...	...	9	...	...	...	...	...	...	...	...	...	8	4	...	...	...	1	22		
			(c)	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Widnes (B)	36 beds (Crow Wood)	8 beds (Barrow's Green)	(a)	108	94	...	290	12	...	...	3	...	10	17	60	58	...	...	...	...	...	652			
Withnell	28 beds	1 bed at Finnington (Blackburn)	(b)	2	...	...	50	1	...	...	...	...	...	...	...	29	12	...	...	7	6	9	116		
			(c)	96	89	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	194	
			(d)	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
			(a)	2	3	...	...	2	...	...	...	...	...	1	...	1	4	2	...	...	...	...	...	13	
Barton-upon-Irwell (R)	At Salford C.B. Hospitals (5 beds)	... (2 beds)	(b)	...	...	...	...	...	...	...	1	...	...	...	...	3	1	...	...	...	...	...	7		
			(c)	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2		
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a)	46	12	...	31	2	...	...	...	...	...	1	...	8	11	10	...	15	...	...	...	...	136
Blackburn (R)	Cases can be removed to Blackburn C.B. Hospital	1 bed at Finnington (Blackburn)	(b)	...	...	...	6	1	...	...	3+	...	...	...	2	9	1	...	...	...	2	...	22		
			(c)	12	8	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a)	3	3	1	7	1	...	...	...	...	...	...	1	8	1	...	...	...	...	...	...	...	25
Clitheroe (R)	Nil	Arrangement with Blackburn C.B.	(b)	...	...	...	10	...	...	1+	...	...	...	...	...	5	...	...	...	...	...	1	17		
			(c)	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a)	4	...	1	30	2	...	...	...	...	64	...	7	10	4	...	...	...	...	...	...	...	122
Lancaster (R)	At Lancaster Borough Hospitals	...	(b)	...	...	...	7	...	...	1+	...	...	...	...	1	1	...	...	...	...	...	...	10		
			(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a)	16	1	1	6	...	...	...	...	...	1	...	1	6	5	...	...	...	...	...	...	...	37
Lunesdale (R)	Hospital at Farleton (12 beds)	...	(b)	...	...	...	4	...	...	1	...	...	...	...	...	3	2	...	...	...	...	...	12		
			(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a)	15	1	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	24
Lancaster (R)	At Lancaster Borough Hospitals	...	(b)	...	...	...	4	...	...	1	...	...	...	...	...	3	1	...	...	...	...	...	9		
			(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	
			(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			(a)	15	1	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	24
Lancaster (R)	Hospital at Farleton (12 beds)	...	(b)	...	...	...	4	...	...	1	...	...	...	...	...	3	1	...	...	...	...	...	9		
			(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	
			(d)
			(a)	15	1	1	4	24

+ A + Barton-upon-Irwell (R) 9 cases not notified

TABLE 18—continued.

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DISTRICT.	Nature of Hospital Accommodation.		Infectious Diseases.																			Disinfection.	No. of houses or rooms disinfected.			
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																							
			Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric Fever (including Paratyphoid).	Acute Primary Pneumonia	Puerperal Fever and Pyrexia.	Cerebro-spinal Fever.	Acute Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria (contracted abroad).	Chicken-pox.	Measles (excluding German Measles).	Whooping Cough.			Diarrhoea (under 2 years).	Total.	
Sefton (R)	...	For ordinary infectious diseases.	For Smallpox.	...	20	6	...	12	...	...	...	...	1	4	7	5	...	...	...	...	...	...	...	55	37	Steam—Liverpool C.B.
Warrington (R)	...	At Liverpool C.B. Hospitals	...	(a) 41	13	1	42	...	...	1	...	...	...	9	27	8	...	...	...	...	...	...	...	144	56	Steam—Warrington C.B.
West Lancashire (R)	...	At Warrington C.B. and Newton-in-Makerfield	...	(a) 63	36	...	61	2	...	...	1	...	...	9	20	8	...	...	...	...	...	...	...	200	126	Steam—Hospital ...
Whiston (R)	...	26 beds—(Aughton)	Tent—8 beds. Arrangement with Liverpool Corporation for additional accommodation	(a) 74	28	2	8	1	...	...	1†	...	...	3	9	30	20	...	...	...	...	...	...	199	102	Steam—Hospital ...
*Wigan (R)	...	36 beds ...	20 beds ...	(a) 13	5	...	15	...	...	...	...	...	...	2	7	3	...	...	...	...	...	...	...	45	26	No proper apparatus
County, 1928 :—																										
Total cases notified			...	563	4797	1566	112	3383	262	15	12	...	74	111	191	832	1798	1068	9	3324	1401	384	4	19916	Total houses or rooms disinfected... 12000 and 8 schools.	
" deaths			...	5	27	109	24	1486	56	15	7	1	76	...	...	1066	287	...	...	92	96	152	...	3499		
" removals to hospital			...	532	2944	1098	46	103	92	3	2	...	11	...	10	44	...	...	...	3	11	...	...	4899		
" deaths in hospital			...	2	16	53	12	27	21	2	...	...	9	...	...	...	...	...	...	...	3	...	...	145		

† 85 cases notified as puerperal fever and 177 as puerperal pyrexia.

Table 19, which is compiled from the information supplied by local Medical Officers of Health in their annual reports, shows the number of notifications (excluding tuberculosis) in the year 1928, the number of cases admitted to hospital, and the total deaths from the notifiable diseases :—

TABLE 19—NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS)
DURING THE YEAR, 1928.

NOTIFIABLE DISEASES.	TOTAL CASES NOTIFIED.														TOTAL CASES RE- MOVED TO HOSPITAL.	TOTAL DEATHS.
	Total Cases at all Ages.	YEARS.														
		Und'r 1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and over.			
Smallpox	563	5	6	4	4	9	94	117	75	66	33	105	45	532	5	
Scarlet Fever	4797	22	95	195	306	458	2130	878	345	295	55	17	1	2944	27	
Diphtheria, including Membranous Croup	1566	16	28	63	110	136	619	253	137	152	33	18	1	1098	109	
Enteric Fever (includ- ing Paratyphoid) ...	112	...	...	1	3	...	13	13	18	27	11	22	4	46	24
Acute Primary Pneumonia Acute Influenzal Pneumonia	3383	177	213	183	138	133	451	195	208	535	370	583	197	103	1486*	
Puerperal Fever	85	...	...	...	...	...	...	...	3	67	15	...	...	} 92	56†
Puerperal Pyrexia	177	...	...	...	...	...	...	...	7	137	33	...	...	
Cerebro-spinal Fever ...	15	1	...	2	1	...	2	3	2	2	1	1	...	3	15	
Acute Poliomyelitis ...	12	2	1	2	...	...	5	...	2	...	...	...	...	2	7
Acute Polio-encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Encephalitis Lethargica	74	1	1	...	...	2	5	5	11	22	8	17	2	11	76
Dysentery	111	...	...	1	...	13	20	12	11	30	6	14	4	...	...
Ophthalmia Neonat'm	191	191	...	...	...	...	...	...	...	...	...	...	...	10	...
Erysipelas	832	9	...	4	...	5	9	22	37	126	142	359	119	44	...	
Malaria (contracted abroad)	9	...	...	...	...	...	...	...	...	7	2	...	...	...	...
‡Chicken-pox	3324	...	...	...	...	...	...	...	...	...	...	...	...	3	...
‡Measles (excluding German Measles) ...	1401	...	...	...	...	...	...	...	...	...	...	...	...	11	92§
‡Whooping Cough ...	384	...	...	...	...	...	...	...	...	...	...	...	...	...	96§
‡Diarrhœa (under 2 yrs.)	4	...	...	...	...	...	...	...	...	...	...	...	...	...	152§

* Deaths from pneumonia (all forms); † Deaths classified together as puerperal sepsis; ‡ In 1928 chicken-pox was notifiable in 63 districts, measles in 6 districts, whooping-cough in 5 districts, diarrhœa in 1 district. and anthrax in 2 districts. § In whole county.

The tabular statement below compares the notifications in 1928 with the preceding year :—

	1927	1928
Smallpox	190	563
Scarlet Fever	3,404	4,797
Diphtheria	1,567	1,566
Enteric Fever	133	112
Acute Primary Pneumonia and Acute Influenzal Pneumonia	3,518	3,383
Puerperal Fever	68	85
Puerperal Pyrexia	197	177
Meningococcal Meningitis (Cerebro-Spinal Fever)	17	15
Acute Poliomyelitis	23	12
Acute Polio-Encephalitis	6	...
Encephalitis Lethargica	107	74
Dysentery	69	111
Ophthalmia Neonatorum	208	191
Erysipelas	801	832
Malaria (contracted abroad)	5	9
*Chicken-pox	2,350	3,324
*Measles	1,871	1,401
*Whooping Cough	120	384
*Diarrhœa (under 2 years) ... ..	...	4
*Anthrax	1	...

* See note (‡) to Table above.

Deaths from the Principal Infectious Diseases.—Table 20, below, gives the death-rates per 1,000 of the population from the principal infectious diseases for the year 1928, and the preceding thirty-three years, showing the five years' averages.

TABLE 20—PRINCIPAL INFECTIOUS DISEASES.

Annual Death-rate per 1,000 of the Population.

YEAR.	Smallpox.	Scarlet Fever.	*Diphtheria.	†Enteric Fever.	Measles.	Whooping Cough.	‡Diarrhœa, &c.
1895	0·009	0·23	0·10	0·23	0·50	0·38	0·95
1896	0·005	0·24	0·09	0·23	0·49	0·36	0·48
1897	Nil.	0·15	0·08	0·19	0·66	0·27	0·77
1898	0·0005	0·10	0·07	0·26	0·25	0·19	1·00
1899	0·0005	0·18	0·18	0·24	0·44	0·26	1·05
Average 5 years, 1895–1899 ...	0·003	0·18	0·10	0·23	0·46	0·29	0·85
1900	0·0015	0·18	0·26	0·20	0·43	0·37	0·60
1901	Nil.	0·18	0·34	0·20	0·18	0·20	0·95
1902	0·0119	0·20	0·30	0·16	0·35	0·19	0·28
1903	0·0366	0·18	0·19	0·15	0·37	0·26	0·40
1904	0·0116	0·18	0·15	0·12	0·43	0·35	0·66
Average 5 years, 1900–1904 ...	0·0123	0·18	0·24	0·16	0·35	0·27	0·57
1905	0·0033	0·13	0·15	0·14	0·26	0·15	0·52
1906	Nil.	0·11	0·16	0·14	0·36	0·13	0·79
1907	0·0005	0·09	0·15	0·09	0·37	0·28	0·26
1908	0·0005	0·10	0·16	0·12	0·18	0·24	0·54
1909	Nil.	0·12	0·15	0·10	0·35	0·14	0·18
Average 5 years, 1905–1909 ...	0·0008	0·11	0·15	0·11	0·30	0·18	0·45
1910	Nil.	0·10	0·11	0·10	0·15	0·23	0·29
1911	Nil.	0·08	0·14	0·12	0·29	0·15	†1·43
1912	Nil.	0·05	0·12	0·08	0·30	0·24	0·30
1913	Nil.	0·05	0·11	0·10	0·31	0·13	0·85
1914	Nil.	0·09	0·13	0·07	0·28	0·18	0·48
Average 5 years, 1910–1914 ...	Nil.	0·07	0·12	0·09	0·26	0·18	0·67
1915	Nil.	0·08	0·14	0·07	0·49	0·20	0·52
1916	0·003	0·06	0·15	0·05	0·17	0·14	†0·27
1917	Nil.	0·03	0·13	0·04	0·27	0·11	0·18
1918	Nil.	0·03	0·15	0·05	0·20	0·31	0·19
1919	Nil.	0·04	0·13	0·02	0·07	0·05	0·16
Average 5 years, 1915–1919 ...	0·0006	0·04	0·14	0·04	0·24	0·16	0·26
1920	0·0005	0·03	0·11	0·03	0·19	0·09	0·25
1921	Nil.	0·03	0·09	0·02	0·04	0·15	0·27
1922	0·0005	0·05	0·08	0·02	0·20	0·12	0·13
1923	Nil.	0·03	0·05	0·02	0·07	0·11	0·12
1924	Nil.	0·02	0·05	0·01	0·14	0·13	0·13
Average 5 years, 1920–1924 ...	0·0002	0·03	0·07	0·02	0·12	0·12	0·18
1925	Nil.	0·03	0·06	0·009	0·10	0·13	0·13
1926	0·0005	0·01	0·05	0·008	0·09	0·13	0·11
1927	0·0005	0·01	0·06	0·01	0·09	0·06	0·09
1928							
Administrative County ...	0·0027	0·01	0·06	0·01	0·05	0·05	0·08
Urban Districts	0·0032	0·01	0·05	0·01	0·05	0·05	0·08
Rural Districts	Nil.	0·01	0·07	0·01	0·03	0·05	0·06
England and Wales	0·001	0·01	0·08	0·01	0·10	0·07	0·12

* In 1899 Membranous Croup included.

† Prior to 1911 the "Fever" death-rate included deaths from Typhus and Continued Fevers (if any).

‡ From 1911, Enteritis deaths included. Since 1916, the "Diarrhœa" death-rate includes deaths from Diarrhœa, &c., under two years of age only.

Smallpox.—In the year 1928, 563 cases of smallpox were notified in the Administrative County area, an increase of 373 cases as compared with the preceding year.

The type of the disease generally prevalent remained mild, but there were 5 deaths registered as due to smallpox.

The County districts affected are shown below :—

District.	Cases notified	Deaths.	District.	Cases notified	Deaths.
Accrington (B)	18	—	Mossley (B)	55	—
Ashton-under-Lyne (B)	12	—	Nelson (B)	19	—
Audenshaw	2	—	Ormskirk	2	—
Aspull	7	—	Oswaldtwistle	59	1
Atherton	13	—	Padiham	156	—
Barrowford	1	—	Ramsbottom	1	—
Chadderton	3	—	Rawtenstall (B)	35	—
Church	4	—	Rishton	5	—
Clayton-le-Moors	2	—	Royton	2	—
Clitheroe (B)	4	—	Swinton and Pendlebury	6	—
Colne (B)	23	—	Tottington	4	—
Crompton	1	—	Trawden	1	—
Eccles (B)	1	—	Tyldesley-with-Shakerley	6	—
Farnworth	1	—	Wardle	17	—
Fleetwood... ..	4	1	Westhoughton	1	—
Haslingden (B)	2	—	Burnley (R)	12	—
Hindley	5	—	Leigh (R)	2	—
Ince-in-Makerfield	16	—	Limehurst (R)	1	—
Leigh (B)	59	1			
Littleborough	1	—			
Milnrow	—	2*	Total	563	5

* Cases occurred in Union Infirmary.

In the majority of districts invaded the County Medical Officer of Health, the Assistant County Medical Officers, County Sanitary Officers, and in certain instances County Nurses and clerks from the County Public Health Department actively co-operated with the local health officials.

The County medical staff also visited a large number of districts to assist in the diagnosis of suspected or doubtful cases.

At Padiham, a prosecution was instituted against a person for wilfully concealing a case of smallpox. The Medical Officer of Health advised legal action in three other cases, but the Council did not adopt the recommendation of the Health Committee to prosecute.

Vaccinations performed by the local Medical Officer of Health, as such, under the Public Health (Smallpox Prevention) Regulations, 1917, were—primary, 165; re-vaccinations, 263.

Following outbreaks of smallpox a large number of vaccinations took place, for example, Aspull, several hundreds; Church, 110; Mossley (B), estimated at 3,000; Oswaldtwistle, 1,530; Padiham, 1,031, etc.

Scarlet Fever.—There was a considerable increase in 1928 in the number of scarlet fever cases, viz., 4,797, with 27 deaths, compared with 3,404 cases and 23 deaths in the year 1927.

The notifications of this and other diseases are grouped in age-periods in Table 19, page 120.

The incidence was greatest in the following districts :—Leigh (B), 282; Stretford, 229 (1 death); Heywood (B), 196; Eccles (B), 179 (1 death); Swinton and Pendlebury, 164 (2 deaths); Hindley, 162 (3 deaths); Farnworth, 126; Tyldesley-with-Shakerley, 126; Radcliffe, 112 (3 deaths); and Widnes (B), 108 (2 deaths).

The mortality rate per 1,000 of the population, 0·01, was the same as in 1927 and 1926—the lowest on record. The case mortality was 0·56 per cent., against 0·67 last year.

Cases of scarlet fever removed to hospital equalled 61·3 per cent. of the total notifications. In 8 districts the whole of the cases notified were removed, and over 80 per cent. in 25 other districts.

Return cases are reported from 17 districts.

School closure took place on account of scarlet fever in 5 districts.

Amongst the observations made by local Medical Officers of Health in connection with scarlet fever outbreaks are the following:—Heywood (B), scarlet fever antitoxin so far has not been available for the treatment by the private practitioner of home-isolated cases, but this might, with advantage, be commenced as in the case of diphtheria antitoxin. Chorley (R), five cases were due to contact in a bus; in this district it is reported there was delay in notification, the parents not realising that non-notification is an offence. West Lancashire (R), there is no doubt that the disease is frequently spread by “missed” cases, which are so mild as to escape the notice of parents, the result being that the doctor is not sent for.

DICK TEST, ETC.—This test was applied at West Lancashire (R), but no immunization was done. Scarlet fever streptococcus antitoxin was used with good results at Carnforth; at Lytham Saint Anne’s (B) the Schultz-Charlton diagnostic test was employed.

Diphtheria.—Cases notified numbered 1,566, one less than last year, and the deaths were exactly the same as in 1927, viz., 109.

Notifications were most numerous in Widnes (B), 94; Radcliffe, 65 (2 deaths); Padiham, 53 (3 deaths); Failsworth, 52 (2 deaths); Leigh (B), 52 (1 death); Chadderton, 48 (4 deaths); Eccles (B), 45 (2 deaths); and Waterloo-with-Seaforth, 41 (2 deaths).

The mortality rate per 1,000 of the population was 0·06, and the case mortality 6·9 per cent. These averages are the same as in the preceding year.

Cases removed to hospital numbered 1,098, or 70·1 per cent. of the total cases notified, and the case mortality in hospital was 4·82 per cent.; of the 468 cases treated at home, 11·96 per cent. died.

From 92 districts, 3,609 swabs were sent for examination.

School closure took place in one district only.

Diphtheria antitoxin.—A supply of antitoxin is available in 115 districts.

As diphtheria had been prevalent in Padiham for some years, a special investigation was made during 1928, by one of the Assistant County Medical Officers of Health. It was shown that the epidemic was not a parochial one, but one of the neighbourhood in general; quite a number of cases occurred after the return of patients from hospital; an increase in the cases was noted each year as soon as the summer holidays began, probably accounted for by the extensive use by school children during the holidays of the local playing fields; this and other evidence pointed to the epidemic being largely a “carrier” one in character.

SCHICK TEST.—At Fulwood, Schick tests were made during outbreaks of diphtheria in two of the institutions; at Lancaster (B) the test was used to check outbreaks at one of the hospitals; 70 children were immunized; at Stretford, 95 children were immunized, and the scheme is to be extended to children between two and five years of age. Tests took place in hospital at Waterloo-with-Seaforth and West Lancashire (R).

Enteric Fever (including Paratyphoid).—Cases notified numbered 112, and there were 24 deaths, a diminution of 21 cases and 2 deaths as compared with the year 1927.

The attack rate per 1,000 of the population was 0·06, and the death-rate 0·01. Sixty-five districts were entirely free in 1928 from enteric fever.

Blood specimens submitted for examination numbered 214 from 57 districts.

In August and September an outbreak of Paratyphoid B occurred at Great Crosby—16 cases; the County medical staff co-operated with the local officials, but no common origin was discovered. The adjoining district of Waterloo-with-Seaforth had 9 cases, and here also the source of infection was not traced. At Lancaster (B), a small outbreak of enteric fever occurred in one of the institutions; it is reported three cases were traceable to drinking from a polluted stream; in another instance the patient had consumed cockles a week before the onset of the illness.

Measles.—There was a considerable fall in the measles mortality, viz., 92 deaths against 177 in 1927. Leigh (B), had 15 deaths; Swinton and Pendlebury and Widnes (B), each 7; and Eccles (B) and Heywood (B), each 6.

Schools were closed in 16 districts.

Measles was notifiable during the year in 6 districts, and 1,401 cases were notified in these districts.

Whooping Cough.—Deaths registered as due to whooping cough were 96, or 13 fewer than in the previous year. Leigh (B), contributed 10 deaths, and Ashton-in-Makerfield, Chorley (B) and Widnes (B), each 6 deaths.

Schools were closed in 4 districts.

This disease was notifiable in 1928 in 5 districts, where 384 cases were reported.

Referring to the fatalities from whooping cough and measles, the Medical Officer of Health of Eccles (B), where both diseases have been notifiable for some years, refers to the high mortality among children under the age of three years. Under the age of one year, one patient out of every 21 dies from whooping cough, and 1 out of 35 from measles. At 2-3 years, 1 out of 43 dies from whooping cough, and 1 out of 38 from measles. Expressed in another way, whooping cough is twenty times more fatal to children under three years than to children over this age, while measles is ten times as fatal to children under three years. If these facts could be brought home to parents the fatalistic attitude towards these diseases might be discarded and they might make a greater effort to protect young children from infection.

Chicken-pox.—This disease was notifiable in 1928 in 63 districts, and 3,324 cases were notified. Schools were closed in four districts.

Diarrhoea, &c.—The following deaths were registered as due to diarrhoea :—under 2 years of age, 152; at all ages, 256. The 152 deaths of children under 2 years corresponded to 5.75 per 1,000 registered births.

Acute Poliomyelitis, Acute Polio-encephalitis, Encephalitis Lethargica, Meningococcal Meningitis (Cerebro-Spinal Fever).—The reported incidence of these diseases is shown below :—

	Acute polio- myelitis.	Acute polio- encephal- itis.	Encephal- itis lethargica.	Meningo- coccal meningitis (cerebro- spinal fever).
Cases notified				
1927... ..	23	6	107	17
1928... ..	12	—	74	15
Attack rate in 1928 per 1,000 of population ...	0.006	—	0.040	0.008
Deaths—				
1927... ..	3	2	89	15
1928... ..	7	1	76	15
Distribution (1928)—	C. D.	C. D.	C. D.	C. D.
Urban districts ...	11 6	— 1	68 64	14 12
Rural districts ...	1 1	— —	6 12	1 3
Seasonal incidence (1928)—				
Cases—1st quarter	—	—	15	4
2nd „ ...	4	—	19	3
3rd „ ...	5	—	18	6
4th „ ...	3	—	22	2

Encephalitis Lethargica.—The notification of this disease is still far from satisfactory. It will be noted from the table below that the deaths registered in 1928 exceeded the number of case notifications. There has been a decline during the last four years in the number of cases reported—from 299 in 1924 to 178 in 1925, 159 in 1926, 107 in 1927, and 74 in 1928. The table shows the notifications, deaths, &c., since 1919, when the disease first became notifiable.

Year.	Cases Notified.	Deaths.	Removals to Hospital.	Deaths in Hospital.
1919 ...	26	—	—	—
1920 ...	32	13	5	1
1921 ...	79	46	15	7
1922 ...	17	16	2	1
1923 ...	61	37	19	13
1924 ...	299	103	78	26
1925 ...	178	98	41	19
1926 ...	159	88	41	18
1927 ...	107	89	13	7
1928 ...	74	76	11	9

Anthrax.—This disease is said to be notifiable in 2 districts.

Reports under Sanitary Officers Order, 1926.—"Special reports" under this Order received by the County Council during the year 1928 numbered 394. Of these, 57 related to school closures, 71 to encephalitis lethargica, and the remainder to smallpox, scarlet fever, enteric fever, malaria, etc.

Hospital Isolation.—Table 18, pages 106 to 119, shows the nature of the hospital accommodation provided in, or available for, each County sanitary district, and also gives for each district—

- (a) the number of cases of infectious disease notified ;
- (b) the total deaths from such diseases ;
- (c) the number of cases removed to hospital ; and
- (d) the number of deaths in hospital.

Disinfection.—The following statement, showing the position of the County districts in regard to the provision of disinfecting apparatus, is prepared from information supplied by local Medical Officers of Health :—

Districts provided with steam apparatus, or using steam apparatus at hospitals	67
„ using steam apparatus belonging to other districts (mainly County or Municipal Boroughs) ...	23
„ provided with dry heat apparatus	1
„ without proper appliances	28

Preesall, previously with no proper means of disinfection, has made arrangements for the use of the Blackpool (C.B.) steam apparatus, and Rainford has made a similar arrangement with St. Helens (C.B.).

Houses, or rooms, disinfected in 1928 numbered 12,000.

Provision of efficient disinfecting apparatus is recommended by the Medical Officer of Health of Denton.

Disinfestation.—In 19 districts, it is stated, facilities are available for the bathing of verminous persons ; disinfestation was carried out in 241 instances.

Tuberculosis.—NOTIFIED CASES AND DEATHS.—The following table gives particulars of the new cases of tuberculosis reported by local Medical Officers of Health in their *Annual Reports* as having been received by them from medical practitioners during the year 1928, and details of the deaths registered are also given :—

Age—Periods.	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Years.								
0—1	2	—	23	14	1	1	17	9
1—5	8	9	98	77	2	4	40	21
5—10	41	34	121	104	1	7	18	14
10—15	24	31	70	82	5	14	6	5
15—20	82	124	66	60	35	66	15	10
20—25	122	155	55	65	82	91	17	14
25—35	208	217	48	54	120	134	10	16
35—45	186	137	14	33	108	68	15	11
45—55	172	83	21	25	108	46	12	11
55—65	79	41	11	15	75	41	7	4
65 and upwards...	25	23	6	6	38	19	7	8
Totals	944	854	533	535	575	491	164	123
	*1798		*1068		1066		287	

*These case notifications which, as stated above, are those reported by local Medical Officers of Health in their annual reports for the year ended 31st December, 1928, differ in number from the notifications of new cases in the weekly returns under the *Tuberculosis Regulations*; the former exceeding the latter by—pulmonary, 75 cases ; non-pulmonary, 60 cases. The difference is accounted for by the fact that all notifications reported on the weekly returns made under the *Tuberculosis Regulations* are carefully scrutinized in the County Public Health Department with the card index, and all "duplicate" notifications are excluded before the County tuberculosis statistics given on pages 128 and 129 are prepared.

TUBERCULOSIS DEATHS AND DEATH-RATES.—PULMONARY.—A further reduction in 1928 is recorded in the County death-rate from pulmonary tuberculosis, viz., 0·58 per 1,000 of the estimated population against 0·61, 0·64, 0·67, 0·68 and 0·70 in the preceding five years. The death-rate for the year under report is the lowest recorded for the County.

Below are given the County death-rates from pulmonary tuberculosis for the years 1920–1928, and the quinquennial averages for the years 1895–1924 :—

				ADMINISTRATIVE COUNTY.				ENGLAND AND WALES.	
				Urban Death Rate.	Rural Death Rate.	County Death Rate.	Mortality per cent. of total deaths (County).	Death Rate.	Mortality per cent. of total deaths.
Average	1895–1899	...	...	1.22	1.03	1.19	—	—	—
„	1900–1904	...	...	0.96	0.77	0.94	—	—	—
„	1905–1909	...	...	0.89	0.74	0.88	—	—	—
„	1910–1914	...	...	0.86	0.67	0.84	—	—	—
„	1915–1919	...	...	1.00	0.79	0.97	—	—	—
„	1920–1924	...	...	0.74	0.59	0.72	—	—	—
Year	1920...	...	...	0.77	0.67	0.76	6.0	0.87	7.2
„	1921...	...	...	0.76	0.59	0.73	6.0	0.88	7.3
„	1922...	...	...	0.79	0.60	0.77	5.8	0.88	6.9
„	1923...	...	...	0.72	0.59	0.70	5.7	0.83	7.2
„	1924...	...	...	0.70	0.54	0.68	5.4	0.84	6.9
„	1925...	...	...	0.69	0.55	0.67	5.3	0.83	6.8
„	1926...	...	...	0.67	0.49	0.64	5.3	0.77	6.6
„	1927...	...	...	0.63	0.47	0.61	4.8	0.79	6.4
„	1928...	...	...	0.61	0.45	0.53	4.9	0.75	6.5

The following table shows the male and female deaths from this disease at various age-periods during 1928 and the previous year :—

	At all Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.
Males—									
1927 ...	588	1	—	3	11	101	252	195	25
1928 ...	575	1	1	1	6	117	228	183	38
Females—									
1927 ...	517	—	2	2	24	152	230	91	16
1928 ...	491	1	1	3	21	157	202	87	19

The death-rate from pulmonary tuberculosis (classified by the Registrar-General as “tuberculosis of the respiratory system”) for each urban and rural district in the County area in the year 1928, is given in Table 3 on pages 14 to 19, and the 1928 district death-rates are compared with the previous year and the mean of the five years 1923–1927 on pages 161 to 184.

The highest district death-rates in 1928 were :—Preesall, 1.46 ; Kearsley, 1.44 ; Billinge-and-Winstanley, 1.34 ; Royton, 1.32 ; Carnforth, 1.28 ; Kirkham, 1.21 ; Extending over a period of five years, Litherland had the highest average rate, viz., 1.14, followed by Dalton-in-Furness, 1.04 ; Waterloo-with-Seaforth, 1.00 ; Sefton (R), 0.92 ; and Kirkham, 0.91.

NON-PULMONARY TUBERCULOSIS.—The table below analyses the deaths from non-pulmonary tuberculosis during 1928 and the previous year at various age periods :—

	At all ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.
1927 ...	296	21	36	38	54	47	56	33	11
1928 ...	287	26	26	35	43	56	52	34	15

THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912–1924.—NOTIFICATIONS.—Table 21, page 128, and Table 22, page 129, analyse, both as regards the parts of the body affected and in age-periods, the notifications of tuberculosis received *under the above Regulations* from district Medical Officers of Health on their Weekly Returns during the fifty-two weeks ended on the 29th December, 1928, corrected by the exclusion of duplicates.

The following table gives the male and female notified cases of pulmonary and non-pulmonary tuberculosis 1913-1928, at certain specified age groups :—

PULMONARY TUBERCULOSIS															NON-PULMONARY TUBERCULOSIS.														
Years {	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up	Total	Total M.&F.	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up	Total.	Total M.&F.			
1913 ... M. { 1913 ... F. { (11 months)	1 6	24 28	97 100	70 104	129 158	131 188	311 296	292 201	228 103	114 65	29 25	1426 1274	2700	29 28	128 118	177 134	137 132	98 118	58 86	71 80	48 47	27 29	18 19	3 7	794 798	1592			
1914 ... M. { 1914 ... F. {	6 3	40 32	80 115	83 107	112 140	172 181	329 336	315 225	240 107	107 47	23 20	1507 1313	2820	43 37	111 88	131 98	95 89	77 77	36 44	47 58	23 27	20 12	14 6	3 4	600 540	1140			
1915 ... M. { 1915 ... F. {	5 5	47 27	97 96	79 111	127 152	138 191	305 383	303 239	235 100	117 60	34 21	1487 1385	2872	39 26	109 88	113 107	93 88	61 84	46 53	50 61	29 33	14 15	5 7	3 4	562 566	1128			
1916 ... M. { 1916 ... F. {	1 2	31 24	71 81	77 96	121 165	157 186	331 345	296 220	190 98	96 52	36 13	1407 1282	2689	20 8	127 68	135 122	99 114	65 85	42 46	47 65	34 41	12 19	13 11	5 2	599 581	1180			
1917 ... M. { 1917 ... F. {	4 2	20 22	77 90	62 100	113 129	104 155	262 296	268 185	190 107	90 50	30 19	1220 1155	2375	21 7	116 79	109 97	105 98	61 89	23 59	42 49	30 25	8 23	9 6	1 5	525 537	1062			
1918 ... M. { 1918 ... F. {	3 1	35 24	55 69	59 74	140 139	108 166	300 297	317 207	232 117	98 52	28 13	1375 1159	2534	14 10	75 75	103 84	65 92	60 80	19 46	29 46	16 29	14 9	7 6	2 4	404 481	885			
1919 ... M. { 1919 ... F. {	2 5	22 14	53 54	55 80	94 126	107 161	238 261	212 184	165 99	91 41	17 24	1056 1049	2105	13 10	50 59	97 98	80 76	53 61	26 43	31 41	22 29	19 11	12 7	4 5	407 440	847			
1920 ... M. { 1920 ... F. {	2 2	24 20	56 53	63 71	94 115	120 122	281 264	249 147	160 84	90 36	14 17	1153 931	2084	31 12	62 66	107 86	108 78	68 62	26 46	35 52	23 34	16 23	11 16	5 1	492 476	968			
1921 ... M. { 1921 ... F. {	1 ...	17 12	43 53	47 77	94 132	133 160	222 255	225 156	162 82	84 50	19 20	1047 997	2044	12 15	60 62	110 89	84 81	53 65	32 41	41 53	23 15	17 21	6 9	4 6	442 457	899			
1922 ... M. { 1922 ... F. {	3 4	16 15	38 45	48 58	84 136	122 136	228 203	191 147	149 61	99 42	27 25	1005 872	1877	18 13	101 77	113 81	81 96	56 61	39 45	39 52	22 25	13 14	7 7	3 5	492 476	968			
1923 ... M. { 1923 ... F. {	2 1	10 14	43 47	44 63	83 115	133 151	238 256	211 152	149 84	96 49	13 16	1022 948	1970	18 14	116 105	139 113	107 108	79 73	35 61	46 64	23 32	15 30	15 14	7 5	600 619	1219			
1924 ... M. { 1924 ... F. {	1 4	29 14	40 31	57 59	105 144	113 142	212 226	206 175	201 94	97 49	18 12	1079 950	2029	19 6	125 104	99 88	94 99	98 84	36 56	45 72	28 31	17 18	12 11	3 13	576 582	1158			
1925 ... M. { 1925 ... F. {	... 3	24 14	39 31	43 48	85 150	117 158	220 204	208 142	194 89	75 34	25 26	1030 899	1929	18 10	114 94	113 90	77 95	60 82	38 43	54 60	27 23	16 18	12 11	5 6	534 542	1076			
1926 ... M. { 1926 ... F. {	1 2	11 13	35 47	45 49	92 116	113 171	215 229	205 123	159 72	114 40	24 13	1014 875	1889	11 19	93 85	103 103	77 54	79 68	31 58	36 54	33 35	17 17	7 6	3 5	490 504	994			
1927 ... M. { 1927 ... F. {	1 ...	14 15	50 41	44 56	117 132	112 133	204 197	194 118	192 74	86 51	20 11	1034 828	1862	13 16	110 85	138 96	90 88	68 62	41 49	41 81	19 35	13 20	5 11	9 6	547 549	1096			
1928 ... M. { 1928 ... F. {	2 ...	10 7	35 34	24 34	76 129	110 148	193 202	169 131	179 62	84 46	27 21	909 814	*1723	17 13	94 73	120 105	69 73	68 58	43 67	40 52	16 23	16 23	10 8	7 6	500 508	*1008			

* See footnote * on Table 21 page 128.

TABLE 21.—SUMMARY OF NOTIFICATIONS OF PULMONARY AND OTHER FORMS OF TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY AREA; AND TABLE 22.—ANALYSIS OF THE NOTIFICATIONS ON FORMS A AND B (EXCLUDING DUPLICATES) RECEIVED DURING THE FIFTY-TWO

WEEKS ENDED 29TH DECEMBER, 1928.

(Collated from the Weekly Returns of District Medical Officers of Health).

NOTIFICATIONS ON FORMS A AND B—excluding duplicates.																																												
PULMONARY.														NON-PULMONARY.																														
	Lungs only.	Lungs and Larynx.	Laryngitis.	Bronchial Glands.	Mediastinal Glands.	Total.	JOINTS AND BONES.										ABDOMINAL.				GENITO-URINARY.								PERIPHERAL GLANDS.				Total.	Total Pulmonary and Non-Pulmonary.	Total Notifications (i.e., cases previously notified).									
							Trunk.		Arm.						Leg.				Not Classified.		Intestines.	Pertoneum.	Mesenteric Glands.	Bladder.	Fall. Tube.	Kidney.	Prostate.	Suprarenal.	Testicle and Epididymis.	Not Classified (Two or more).	Meningitis (Brain).	Miliary (Generalised).				Skin (Lupus).	Axillary.	Cervical.	Inguinal.	MISCELLANEOUS.				
							Head (including Middle Ear).	Ribs and Sternum.	Spine.	Shoulder.	Scapula.	Humerus.	Elbow.	Radius.	Ulna.	Hand and Wrist.	Hip and Pelvis.	Femur.	Knee.	Tibia.	Fibula.	Foot and Ankle.	Two or more different joints.	Not Classified.	Intestines.	Pertoneum.	Mesenteric Glands.	Bladder.	Fall. Tube.	Kidney.	Prostate.	Suprarenal.	Testicle and Epididymis.	Not Classified (Two or more).	Meningitis (Brain).	Miliary (Generalised).	Skin (Lupus).	Axillary.	Cervical.	Inguinal.	MISCELLANEOUS.			
Thirteen weeks ended 31st March, 1928 ...	492	7	2	2	2	505	1	2	10	2	..	2	1	2	..	3	18	1	8	2	1	7	3	..	5	36	12	..	1	2	2	22	1	18	1	116	..	10	289	794	863
Thirteen weeks ended 30th June, 1928 ...	487	3	3	496	..	3	13	1	..	1	5	20	1	8	1	..	9	4	1	4	33	5	3	..	1	3	..	25	2	10	2	135	2	10	307	803	873
Thirteen weeks ended 29th September, 1928	382	3	1	2	..	388	..	2	15	1	..	1	2	4	13	3	7	6	..	6	24	6	2	3	..	15	2	14	..	86	1	4	217	605	667	
Thirteen weeks ended 29th December, 1928	325	5	2	1	1	334	1	1	9	2	1	14	..	7	..	6	3	..	3	20	4	1	1	3	1	18	..	18	3	75	..	5	195	529	589		
Total ...	1686	18	8	8	3	*1733	2	8	52	4	..	4	5	2	..	13	65	5	30	3	1	28	10	1	18	113	27	1	1	10	..	1	7	2	80	5	60	6	412	3	29	*1008	*2731	2992

NOTIFICATIONS ON FORMS A AND B—excluding duplicates.																				NOTIFICATIONS, FORM B ONLY. (By School Medical Inspectors).										Number of Cases of Cases Notified on Form C. (Admissions).		Number of Cases of Cases Notified on (Dis- charges from Institu- tions).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
PULMONARY.										NON-PULMONARY.										PRIMARY NOTIFICATIONS. (i.e. excluding duplicates).				Total Notifi- cations (i.e. including Law cases previously notified).	Poor Sana- toria. Insti- tutions.	Form D (Dis- charges from Institu- tions).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941				1942	1943	1944	1945	1946		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228	3229	3230	3231	3232	3233	3234	3235	3236	3237	3238	3239	3240	3241	3242	3243	3244	3245	3246	3247	3248	3249	3250	3251	3252	3253	3254	3255	3256	3257	3258	3259

Includes 115 cases (63 pulmonary and 52 non-pulmonary) in which the notifications have been withdrawn (to 30th June, 1929), where the diagnosis was subsequently found to be incorrect. See note (†) on page 130.

Since February 1st, 1913, tuberculosis, both "pulmonary" and "other forms," has been compulsorily notifiable; previous to that date it was incompletely notifiable. The following table shows that the case notification rate for the Administrative County has declined, as regards "pulmonary" tuberculosis, from 1.54 per 1,000 of the population in the year 1913 to 0.95 in 1928, and as regards "other forms" of tuberculosis from 0.90 per 1,000 to 0.55. For purposes of comparison the corresponding rates for England and Wales are given in the table :—

Year.	Administrative County of Lancaster.				England and Wales. §	
	Pulmonary Tuberculosis.		Other forms of Tuberculosis.		Pulmonary Tuberculosis.	Other forms of Tuberculosis.
	Cases notified.	Case rate per 1,000 of population.	Cases notified.	Case rate per 1,000 of population.	Case rate per 1,000 of population.	Case rate per 1,000 of population.
1913 (11 months) ...	2700	1.54	1592	0.90	2.20 (whole year)	0.99
1914 ...	2820	1.61	1140	0.65	2.05	0.63
1915 ...	2872	1.64	1128	0.64	1.93	0.63
Average 3 years, 1913-1915	...	1.59	...	0.73	2.06	0.75
1916 ...	2689	1.52	1180	0.66	1.96	0.65
1917 ...	2375	1.35	1062	0.60	2.01	0.61
1918 ...	2534	1.47	885	0.51	2.10	0.55
1919 ...	2105	1.21	847	0.48	1.72	0.46
1920 ...	2084	1.20	968	0.55	1.55	0.41
Average 5 years, 1916-1920	...	1.35	...	0.56	1.86	0.53
1921 ...	2044	1.16	899	0.51	1.48	0.40
1922 ...	1877	1.06	968	0.54	1.40	0.41
1923 ...	1970	1.11	1219	0.68	1.54 ‡	0.52 ‡
1924* ...	2029	1.13	1158	0.64	1.56	0.52
1925 ...	1929	1.07	1076	0.60	1.56	0.53
Average 5 years, 1921-1925	...	1.10	...	0.59	1.50	0.47
1926 ...	1889	1.05	994	0.55	1.52	0.51
1927 ...	1862	1.03	1096	0.60	1.48	0.50
1928 ...	†1723	0.95	†1008	0.55	1.46	0.51

The totals given for 1928 exclude 261 duplicate notifications; 1,280 notifications were received on Form C (admissions to Institutions), and 1,451 on Form D (discharges from Institutions).

* 53 weeks. § Figures extracted from Report of Chief Medical Officer, Ministry of Health.

‡ From 1923 onwards figures include "fresh cases" ascertained otherwise than by formal notification.

† Following on a suggestion made by the Chief Medical Officer of the Ministry of Health, any case notified as tuberculosis since the year 1925, and found, as the result of observation and examination by the Tuberculosis Officer, to have been wrongly notified, is removed from the Register and the notification cancelled, the consent of the notifying medical practitioner to the withdrawal of the notification having been previously obtained. Of the cases notified in 1928, 115 such withdrawals (63 pulmonary and 52 non-pulmonary) have so far (to 30th June, 1929), taken place. (See footnote on Table 21). The totals given above, and in Tables 21 and 22 are the gross notifications.

For reference, and for the information of the County Tuberculosis Department, a card index of every case notified, and also a record of the deaths from tuberculosis, are kept up to date in the County Public Health Department, and all notifications received by the County Medical Officer of Health are forwarded each week to the County Tuberculosis Department.

THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1924.—From the returns supplied by the local Medical Officers of Health under these Regulations, the number of cases of tuberculosis on the local registers on the 31st December, 1928, was as under :—

	Males.	Females.	Total.
Pulmonary tuberculosis ...	4,019	3,457	7,476
Non-pulmonary tuberculosis	2,596	2,773	5,369
Total ...	6,615	6,230	12,845

COUNTY TUBERCULOSIS SCHEME.—The administration of the County Council's scheme for the diagnosis and treatment of tuberculosis is in the hands of the County Tuberculosis Committee, and full details of every section of the work are given in Dr. Cox's Annual Report.

PUBLIC HEALTH ACT, 1925.—Under Section 62 of this Act, one application was made at Padiham for compulsory removal to hospital, and an Order was granted. At Swinton and Pendlebury two notices were served, and the persons concerned then submitted to removal voluntarily. Under Section 67 lectures on health subjects were given in 32 districts; in 11 districts health weeks were held. References to the lectures, film showings, &c., undertaken by the County Council public health staff are made on pages 135 to 137.

The Public Health (Venereal Diseases) Regulations, 1916.—COUNTY COUNCIL SCHEME. The County Council scheme for the diagnosis and treatment of venereal diseases which was put into operation in 1916, has been fully maintained during the year under report.

The details of the County scheme were set out in the report for 1925.

LABORATORY FACILITIES.—The examinations of specimens from cases or suspected cases are carried out, by arrangement, at the following laboratories :—

MANCHESTER ... The University of Manchester, Public Health Laboratory, York Place, Oxford Road (Prof. Maitland, Director).

LIVERPOOL ... The University of Liverpool, City Laboratories and School of Hygiene, Mount Pleasant (Prof. Beattie).

BURNLEY ... County Borough of Burnley Public Health Laboratory, Victoria Hospital. (Dr. A. H. Priestley).

The outfits supplied to medical practitioners during 1928 were as follows :—

Wassermann test.	Detection of Spirochaeta pallida.	Detection of Gonococci.	Total.
1476	2	130	1608

TREATMENT CENTRES.—The County Council have arrangements with the following 25 Institutions for the treatment of patients residing in the county area :—

Treatment Centre.	Days and Hours of Out-Patient Clinic.	
	MALES.	FEMALES.
ASHTON-UNDER-LYNE District Infirmary, Darnton Road <i>Medical Officers :—</i> James R. Robertson Margaret Gorman	Wednesday, 3—4 p.m. Thursday, 6—7.30 p.m. For Gonorrhœa cases, Monday to Friday, 6.30—7.30 p.m.	Monday, 6—7 p.m. Wednesday, 3—4 p.m. Irrigation :— Monday to Friday, 6.30—7.30 p.m.
BARROW-IN-FURNESS North Lonsdale Hospital, School Street <i>Medical Officers :—</i> F. E. Daniel J. Gray	Wednesday, 10.30 a.m. Thursday, 7.30 p.m. Saturday, 10.30 a.m. Daily 6—7 p.m.	Tuesday, 7.30 p.m. Friday, 10.30 a.m. Irrigation :— Daily, by arrangement.
BLACKBURN and East Lancashire Royal Infirmary <i>Medical Officers :—</i> W. Cran Duthie Ella Maekenzie	Tuesday, 5 p.m. Friday, 7.30 p.m. <i>N.B.</i> —New patients should present themselves 15 minutes before above hours.	Monday, 5.30 p.m. Thursday, 6 p.m. Irrigation :— Monday to Friday, 6.30—7.30 p.m.
BLACKPOOL Victoria Hospital, Whitegate Drive <i>Medical Officer :—</i> B. Bartlett	Monday and Thursday, 4.45—6.30 p.m. Wednesday and Saturday, 11 a.m.—12.30 p.m.	Tuesday, 4.45—6.30 p.m. Friday, 11 a.m.—12.30 p.m.
BOLTON Public Health Department Clinic, Howell Croft North <i>Medical Officers :—</i> C. W. Paget Moffatt John McKeague Mary E. Boullen A. G. Morrison	Monday, Tuesday, and Wednesday, 7 p.m. Monday and Wednesday, 10 a.m. Friday, 10 a.m. and 7 p.m.	Thursday, 7 p.m. Saturday, 11 a.m. Irrigation :— Tuesday, 10 a.m. and Wednesday, Thursday and Friday, 2.30 p.m.
BOOTLE Borough Hospital, Derby Road <i>Medical Officer :—</i> W. L. Webb	Monday, 5 p.m. Wednesday, 6.30 p.m. Friday, 6.30 p.m.	Wednesday, 12 noon. Thursday, 5.30 p.m.
BURNLEY Victoria Hospital <i>Medical Officer :—</i> Arthur Henry Priestley	Monday, 10—11 a.m. and 5.30—6.30 p.m. Thursday, 5.30—6.30 p.m. New cases seen any day.	Friday, 11 a.m.—12 noon and 5.30—6.30 p.m.

Treatment Centre.

Days and Hours of Out-Patient Clinic.

BURY Dispensary, The Wylde*Medical Officer :—*
John Holker**LIVERPOOL Royal Infirmary, Pembroke Place***Medical Officer :—*
R. Stopford Taylor**LIVERPOOL David Lewis Northern Hospital (entrance in Leeds Street)***Medical Officers :—*
Arthur A. Fitch
William L. Webb**LIVERPOOL Royal Southern Hospital, Caryl Street***Medical Officers :—*
Arthur A. Fitch
G. Vincent Hall
Constance M. Tinkler**LIVERPOOL Stanley Hospital, Stanley Road, Kirkdale***Medical Officers :—*
B. M. Bennett
Ruth Nicholson**MANCHESTER Royal Infirmary, Nelson Street, Oxford Road***Medical Officers :—*
Alex. Wilson
Wm. Dyson
John Holker**MANCHESTER St. Luke's Hospital, Duke Street, Liverpool Road***Medical Officers :—*
Alexander Wilson
W. J. S. Reid
Eliz. C. Byrd**MANCHESTER AND SALFORD****Hospital for Skin Diseases, Quay Street, Deansgate (Syphilis and Skin Diseases only treated at this Hospital)***Medical Officers :—*
G. H. Lancashire
L. Savatard
W. Dyson
R. Gibson**MANCHESTER St. Mary's Hospitals, (Whitworth Street West Branch) Oxford Street***Medical Officers :—*
F. Hamilton Lacey
W. R. Addis**MANCHESTER Ancoats Hospital, Mill Street, Ancoats***Medical Officers :—*
W. J. S. Reid
E. D. McCrea
L. Anderson Wilson
Gordon Whitehead
S. E. Critchley**MALES.**

Friday, 6.30 p.m.

FEMALES.

Tuesday, 6.30 p.m.

New Patients :—

Monday, 5.30 p.m.

Tuesday, 6 p.m.

Tuesday, 1 p.m.

Thursday, 12 noon.

Wednesday, 5.30 p.m.

Friday, 7 p.m.

Continuation Treatment :—Daily (except Sunday),
9 a.m.—6.30 p.m.Daily (except Sunday),
10—11 a.m.**New Patients :—**Monday and Friday,
5—6 p.m.

Wednesday, 5—6 p.m.

Continuation Treatment :—Tuesday, Wednesday,
Thursday, and Satur-
day, 6—8 p.m.**New Patients :—**

Tuesday, 4.30 p.m.

Friday, 5 p.m.

Thursday, 4.30 p.m.

Saturday, 1 p.m.

Continuation Treatment :—Daily, 5 p.m. (except
Friday and Sunday).Daily, 5 p.m. (except
Sunday).

Saturday, 1 p.m.

Saturday, 1 p.m.

New Patients :—Monday and Thursday,
5—6 p.m.Tuesday, 5—6 p.m.
Saturday, 12 noon.**Continuation Treatment :—**Daily, 6—7 p.m. (except
Tuesday, Saturday,
and Sunday).Daily, 11 a.m. (except
Sunday).**Syphilis :—**

Thursday, 6—8 p.m.

Thursday, 11 a.m. (also
for children).**Diseases of the Genito-Urinary Organs :—**

Wednesday, 6—8 p.m.

Wednesday, 11 a.m. (also
for children).**Syphilis and Diseases of the Genito-Urinary Organs :—**
Monday, 6 p.m.

Monday, Tuesday,

Thursday, Friday,

5—7 p.m.

Wednesday, 5—7 p.m.
(women only).

Friday, 11 a.m.—1 p.m.

Irrigation and Intermediate Treatment : Daily
(Sunday excepted), 10 a.m.—7 p.m. Saturdays,
10 a.m.—1 p.m.**Daily (Sunday excepted)**

9—10 a.m.

9—11 a.m.

Children, 9—11 a.m.

Monday, Wednesday,
Thursday, and Friday,
9—10.30 a.m.

Thursday, 5—7 p.m.

Tuesday, 7—8 p.m.

Wednesday, 5.30—7 p.m.

Wednesday, 11.30 a.m.

Saturday, 5.30—7 p.m.

—1 p.m.

Treatment Centre.

Days and Hours of Out-Patient Clinic.

OLDHAM Royal Infirmary, Union Street West

Medical Officers :—
C. B. Gerrard
E. B. Brown
R. I. Poston

MALES.

Syphilis :—
Tuesday, 7.30 p.m.
Gonorrhœa :—
Wednesday, 7.30 p.m.

FEMALES.

Monday, 7.30 p.m.
Tues., Wed., Thurs. and
Fri., 3 p.m.

Irrigation :—

Monday to Friday 9.30 a.m.—8.30 p.m.
Saturday, 9.30 a.m.—12.30 p.m.

PRESTON Royal Infirmary, Deepdale Road

Medical Officer :—
W. H. Pimblett

Wednesday, 4.30—7.30 p.m.

Friday, 4.30—7 p.m.

Intermediate Treatment :—

Daily, 8.30—9.30 a.m. and
5—7 p.m.

Tuesday, 4.30—7 p.m.

Tuesday, 4.30—7 p.m.
Saturday, 2—4 p.m.

ROCHDALE Infirmary, Redcross Street

Medical Officers :—
J. C. Robertson
J. M. Valentine

Intermediate Treatment :—

Monday, 6.30 p.m.
Wednesday, 12 noon.
Friday, 6.30 p.m.
Saturday, 5.30 p.m.

Monday
Thursday
Friday
Saturday } 3 p.m.

Clinic :—

Tuesday, 3.45—5.45 p.m.
Thursday, 5—7 p.m.

Tuesday, 9.30—11.30 a.m.
Wednesday, 5.30—7.30 p.m.

SALFORD Municipal Clinic, 153—155, Regent Road

Medical Officer :—
E. T. Burke

Sunday, 9.30 a.m.—12.30 p.m., 3.30—6.30 p.m.

Monday to Friday, 8.30 a.m.—8.30 p.m.

Saturday, 8.30 a.m.—12.30 p.m., 7—8.30 p.m.

SOUTHPORT Infirmary, Curzon Road

Medical Officer :—
H. Bardsley

Monday and Thursday, 5—8 p.m. | Tuesday, 2—5 p.m.

Daily Treatment :—

Monday, Tuesday, Wednesday, Thursday and Friday, 8—9.30 a.m. and 6—7.30 p.m.
Saturday, 6—7.30 p.m.

Monday, Tuesday, Wednesday, Thursday and Friday, 2 p.m.
Saturday, 10 a.m.—12 noon.

ST. HELENS Dispensary, 18, Cloughton Street

Medical Officers :—
Frank Hauxwell
Donald E. Morley
Helen Standring

Monday, 6—7 p.m.

Wednesday, 5.30—7 p.m.
(also for children).

Disinfection and Irrigation :—

Monday to Friday, 9.30 a.m.—5 p.m.
Saturday, 9.30 a.m.—12 noon.

WARRINGTON Infirmary and Dispensary, Kendrick Street. Outpatient Clinic—Beaumont Street entrance

Medical Officer—
E. Pigott

Tuesday, 4 p.m.
Friday, 5 p.m.

Tuesday, 5 p.m.
Friday, 6 p.m.

WIGAN Royal Albert Edward Infirmary, Wigan Lane

Medical Officer—
H. Bardsley.

Tuesday, 4—6 p.m.
Wednesday, 2.30—4.30 p.m.
Friday, 4—6 p.m.

WORK CARRIED OUT AT THE TREATMENT CENTRES DURING THE YEAR 1928.—The following table giving the attendances during the year 1928 is compiled from the Annual Returns, Form V.D.(R), of the Medical Officers of Treatment Centres. The table also gives the number of attendances at the Centres for the five years 1923–1927.

	Number of County Residents attending for the <i>first</i> time, and found to be suffering from :—				Total Number of Attendances of County Residents at Out-patient Clinic.	Aggregate Number of In-patient days.	Number of Doses of Arseno-benzene Compounds.
	Syphilis.	Soft Chancre	Gonorrhœa.	Conditions other than Venereal.			
Year 1923	598	9	545	418	29661	1742	6931
Year 1924	475	17	607	405	25344	1321	6051
Year 1925	501	16	615	426	29001	2067	5563
Year 1926	494	8	625	445	33297	980	6228
Year 1927	474	17	786	486	35461	965	6702
Year 1928 :—							
Ashton-under-Lyne District Infirmary	31	—	39	22	2094	11	349
Barrow-in-Furness North Lonsdale Hospital	6	—	2	4	148	—	67
Blackburn and East Lancashire Royal Infirmary	55	—	95	110	5498	353	767
Blackpool Victoria Hospital	17	2	71	30	2819	7	351
Bolton Public Health Department Clinic	62	2	110	67	4499	—	839
Bootle Borough Hospital	23	3	80	8	5446	196	394
Burnley Victoria Hospital	27	1	53	14	1795	80	467
Bury Tuberculosis Dispensary Clinic	38	—	48	5	1116	—	233
Liverpool Royal Infirmary	9	—	31	14	1035	—	150
Liverpool David Lewis Northern Hospital	10	—	7	—	431	—	21
Liverpool Royal Southern Hospital	10	1	8	—	592	248	125
Liverpool Stanley Hospital	7	—	7	7	540	37	56
Manchester Ancoats Hospital	55	—	31	40	1668	—	410
Manchester Royal Infirmary	11	—	21	6	934	—	85
Manchester St. Luke's Hospital	20	3	38	25	916	238	147
Manchester and Salford Hospital for Skin Diseases	35	—	8	21	1124	—	85
Manchester St. Mary's Hospitals	1	—	11	34	820	—	78
Oldham Royal Infirmary	21	—	45	15	1180	57	192
Preston Royal Infirmary	61	—	97	54	5478	—	1496
Rochdale Infirmary	16	—	34	16	1511	—	187
Salford Royal Hospital	23	2	58	32	3848	119	167
St. Helens Corporation Hospital	11	—	17	2	390	53	67
Southport Royal Infirmary	8	1	21	4	911	118	144
Warrington Infirmary	8	—	15	6	1258	3	87
Wigan Royal Albert Edward Infirmary	23	4	44	59	4388	139	600
Other Institutions treating County residents—Seamen's Dispensary, Liverpool	6	1	9	1	404	—	29
Total for year 1928	594	20	1000	596	50843	1659	7593

Compared with the previous year, there was a considerable increase in the number of new cases attending the Clinics for the *first* time. The total attendances also show a substantial increase.

Railway Vouchers.—During the year, 871 railway vouchers were provided by the County Public Health Department to 47 necessitous persons to enable them to attend treatment centres. The expenditure on this item during 1928 was £72 8s. 8d.

ARSENOBENZENE COMPOUNDS.—Under the arrangement for the supply of arsenobenzene compounds to medical practitioners “approved” for this purpose the following were supplied during 1928 :—

Total No. of medical practitioners “approved” for supply of these preparations.	No. of doses of Arsenobenzene Compounds supplied to medical practitioners in 1928.							Total.
	Novarsenobillon.	Kharsivan	Neokharsivan.	Sulphostab.	Sulfarsenol.	Stabilarsan.	Kharsulphan.	
170	440	6	205	29	173	70	18	941

EDUCATIONAL AND PROPAGANDA WORK.—The statement below shows the approximate number of persons who attended the lectures, film showings, &c., arranged in 1928 by the County Public Health Department, under the Venereal Diseases Scheme :—

Addresses and Lectures			Lantern Lectures.	Film Lectures.	Total.
Men & Boys.	Women & Girls.	Mixed.			
—	720	702	1715	102450	105587

The lectures and film showings in 1928 on subjects allied to venereal disease numbered 234; the total attendances at these lectures increased from 16,352 in 1927 to 105,587 in 1928. To a large extent the increase was due to the showings of the new film “Dangers of Ignorance.” Copies of this film were secured by the British Social Hygiene Council through the Central Council for Health Education of the Society of Medical Officers of Health. It was laid down that the film must be shown separately to audiences of men and women, and all displays had to be accompanied by an address given by a lecturer approved by the Council.

In addition to the film showings, lectures were given during the year to such organisations as Women’s Guilds, Women’s Institutes, Co-operative Guilds, &c.; special talks were given to girls and boys, to the members of institutes and clubs, to Sunday school teachers and adult classes, Girls’ Friendly Societies, &c. Special lectures were given to health visitors and certified midwives, and to mothers attending child welfare centres.

The Cine-motor lorry provided by the British Social Hygiene Council was used in 1928 in 5 County districts.

The special posters prepared by the Council were exhibited at many of the lectures, and considerable quantities of literature of various types, were distributed.

Further details of these lectures are set out in the tabular statement below :—

District	Date 1928	Type of audience	Approx. No. present	District	Date 1928	Type of audience	Approx. No. present
Accrington (B) ...	June 18-20	Men and women separately. Commercial showing of film "Dangers of Ignorance."	10,000	Little Lever ...	Oct. 9	Mixed	450
Ashton-in-Makerfield	May 1-4	Do.	4,000	Lytham St. Anne's (B)	Mar. 22 Aug. 20-24	Congregational Guild Men and women separately. Commercial showing of film "Dangers of Ignorance."	12 800
Ashton-u-Lyne (B)...	Sept. 27	Mixed	900	Morecambe (B) ...	Aug. 13-15 Nov. 6	Do. Co-op. Guild	1,200 80
Aspull (New Springs)	Oct. 3	Mixed	200	Nelson (B) ...	June 4-8	Men and women separately. Commercial showing of film "Dangers of Ignorance."	9,500
Bacup (B) ...	July 2-6	Men and women separately. Commercial showing of film "Dangers of Ignorance."	4,000	Newton-in-Makerfield	Feb. 16	Mixed	120
Blackrod ...	Jan. 24	Mixed	100	Orrell... ..	Feb. 10 Oct. 24	Mixed Mixed	50 200
Brierfield ...	Feb. 19	Mixed	300	Oswaldtwistle ...	June 25-29	Men and women separately. Commercial showing of film "Dangers of Ignorance."	3,400
Carnforth ...	Mar. 14	Co-op. Guild	40	Rawtenstall (B) ...	May 14-19	Do.	9,500
Chadderton ... (Hollinwood)	Feb. 22	Co-op. Guild	50	Royton ...	Jan 12	Co-op. Guild	50
Chorley (B) ...	May 28, 29, 30, 31 and June 1	Men and women separately. Commercial showing of film "Dangers of Ignorance."	4,500	Stretford ...	Oct. 30	Do.	50
Clitheroe (B) ...	June 25-27	Do.	1,500	Swinton and Pendlebury	July 2-6	Men and women separately. Commercial showing of film "Dangers of Ignorance."	2,200
Colne (B) ...	May 24	Mothers' Club	40	Turton (Eagley) ...	Oct. 23	Mixed—Social Club	60
Darwen (B) ...	Mar. 5-10	Men and women separately. Commercial showing of film "Dangers of Ignorance."	10,000	Tyldesley-with-Shakerley	June 21	Men and women separately. Commercial showing of film "Dangers of Ignorance."	1,800
Do. ... (Spring Vale)	Mar. 20	Institute	50	Urmston ...	Feb. 12	Mixed	400
Eccles (B) ...	Oct. 1	Women's Section, N.U.R.	20	Widnes (B) ...	Mar. 13 July 9-13	Co-op. Guild Men and women separately. Commercial showing of film "Dangers of Ignorance"	100 3,000
Farnworth ...	June 4-8	Men and women separately. Commercial showing of film "Dangers of Ignorance."	4,000	Worsley (Walkden)...	Oct. 25	Mixed	500
Formby ...	July 16-20	Do.	300	Blackburn (R) ... (Feniscowles)	Feb. 14	Women's Guild	40
Great Harwood ...	Jan. 17 July 30	Women's Meeting Men and women separately. Commercial showing of film "Dangers of Ignorance"	250 2,000	Bury (R) ... (Ainsworth)	Feb. 7	Mixed	50
Haslingden (B) ...	Feb. 5 Mar. 6 Oct. 2	Mixed Women Co-op. Guild	500 50 120	Chorley (R) ... (Whittle-le-Woods)	Jan. 30	Mixed	50
Heywood (B) ...	July 9-13	Men and women separately. Commercial showing of film "Dangers of Ignorance"	2,500	Fylde (R) ... (Singleton)	Oct. 17	Women's Institute	20
Hindley ...	July 16-18	Do.	1,200	West Lanes (R) ... (Tarleton)	July 26-27	Men and women separately. Commercial showing of film "Dangers of Ignorance"	350
Horwich ...	June 25	Do.	1,500	Birkenhead (C.B.) (By request)	April 16-20	Women, Commercial showing of film "Dangers of Ignorance."	5,000
Kearsley ...	Jan. 18	Mothers' Union and Girls' Friendly Society	30	Blackburn (C.B.) ... (By request)	April 23-27	Do.	5,000
Lancaster (B) ...	Feb. 23	Mixed	200	Blackpool (C.B.) ... (By request)	Jan 31	Women's Co-op. Guild	120
Lathom & Burscough (Nowburgh)	Nov. 29	Girls' Friendly Society	20	Preston (C.B.) ... (By request)	April 2-4	Women, Commercial showing of film "Dangers of Ignorance."	2,000
Leigh (B) ...	Feb. 26 Mar 26-31	Mixed Men and women separately. Commercial showing of film "Dangers of Ignorance."	900 10,000				
Little Hulton ...	Mar. 27	Mixed	65				
Do. (Health week)	Nov. 2	Mixed	150				

Other Health Lectures.—GENERAL HYGIENE.—In addition to the lectures, &c., given in connection with County Councils' venereal diseases scheme, lectures as set out below were given by the County Public Health Staff on topics of general and personal hygiene :—

District.	Date 1928.	Type of audience.	Approx. No. present.	District.	Date 1928.	Type of audience.	Approx. No. present.
Ashton-in-Makerfield	Nov. 28	Mixed	250	Walton-le-Dale (Los-	Jan. 27	Mothers' Union	40
Ashton-u-Lyne (B)...	Sept. 25	Mixed	450	tock Hall) ...			
Aspull (New Springs)	Oct. 3	Child Welfare Centre	20	Do. (Bamber Bridge)	Nov. 8	Child Welfare Centre	45
Barrowford ...	Dec. 6	Child Welfare Centre	12	Westhoughton ...	Feb. 14	Mixed	650
Atherton ...	Nov. 14	Mixed	55	(Health Week) ...	Feb. 17	School Children	750
Audenshaw ...	July 11	Mixed	256	Widnes (B)			
Blackrod ...	Nov. 13	Child Welfare Centre	20	(Health week) ...	Oct. 11	Mixed	50
Carnforth ...	Jan. 13	Mixed	400	Worsley (Walken) ...	May 3	Child Welfare Centre	40
Clayton-le-Moors ...	Oct. 10	Mixed	350	Do. (Health week)	Oct. 21	Mixed	900
	Oct. 10	Mixed	250		Oct. 25	Child Welfare Centre	60
Colne (B) ...	Nov. 4	Mixed	1200	Barton-upon-Irwell			
Crompton (Shaw) ...	Dec. 2	Mixed	550	(R)... ...	Nov. 28	Child Welfare Centre	20
Farnworth ...	Oct. 24	Mixed	700		Nov. 28	Mothers' Class	50
(Health Week) ...				Blackburn (R)			
Fleetwood ...	Feb. 21	Mixed	120	(Feniscowles) ...	Dec. 4	Child Welfare Centre	20
Great Harwood ...	Nov. 6	School Children	1200		Dec. 11	Women's Guild	45
	Nov. 27	Child Welfare Centre	40	Burnley (R)			
Haslingden (B) ...	Jan. 12	Mixed	500	(Briercliffe) ...	Dec. 5	Child Welfare Centre	20
	Jan. 19	Child Welfare Centre	70				
	Jan. 26	Ladies' Aid Society	110	Chorley (R) (Heskin)	Feb. 3	Young People	30
Haydock ...	Nov. 21	Child Welfare Centre	35	Do. (Coppull) ...	Nov. 15	Child Welfare Centre	45
Lathom & Burscough	July 4	Women's Institute	40				
Do. (Westhead)...	Sept. 19	Mothers' Class	70	Clitheroe (R)			
Leigh (B) ...	Feb. 23	Sec. School Children	900	(Chipping) ...	May 1	Women's Institute	65
	Feb. 24	Elem. School Boys	1000	(Whalley) ...	Nov. 27	Mothers' Union	40
	Feb. 24	Elem. School Girls	1000	(Little Mitton) ...	Dec. 5	Women's Institute	45
Littleborough ...	May 15	Mothers' Union and	50				
		Girls' Friendly		Fylde (R)			
		Society		(Thistleton) ...	Jan 25	Women's Institute	30
Little Lever ...	Oct. 9	Children	200	(Treales) ...	May 10	Women's Institute	25
(Health week)	Oct. 11	Mixed	400				
Lytham St. Anne's (B)	Mar. 22	Child Welfare Centre	70	Garstang (R)			
Ramsbottom ...	Feb. 28	Co-op. Guild	50	(Scorton) ...	Oct. 8	Women's Institute	25
Skelmersdale ...	Nov. 14	Child Welfare Centre	20				
Standish-with-	Dec. 12	Child Welfare Centre	30	Lancaster (R)			
Langtree				(Ellel) ...	May 17	Women's Institute	60
Swinton and Pendle-	Sept. 30	Mixed	700				
bury				Leigh (R)			
Turton ...	Dec. 3	Child Welfare Centre	30	(Lowton) ...	Nov. 12	Mothers' Union	60
(Bromley Cross)							
Tyldesley-with-	April 26	Mixed	40	Preston (R)			
Shakerley				(Longton) ...	June 21	Women's Institute	25
				Warrington (R)			
				(Rixton-with-			
				Glazebrook) ...	Jan. 10	Women's Institute	30
				(Burtonwood) ...	Nov. 15	Child Welfare Centre	20
				West Lancashire (R)			
				(Aughton) ...	April 17	Women's Institute	30
					Nov. 20	Women's Institute	40
				Preston			
				(County Hall) ...	Oct. 2	Council of the	150
						Women's Institute	

MATERNITY AND CHILD WELFARE.

MIDWIVES ACTS, 1902-1926.

The County Council is the "Local Supervising Authority" responsible for the administration of the Midwives Acts in the Administrative County area.

ROLL OF MIDWIVES.—The number of certified midwives on the County Register on the 31st December, 1928, was 768, exactly the same number as at the end of the year 1927.

During the year under report, 78 newly-certified midwives gave notice of their intention to practise in the County area, and 21 who had previously "ceased" re-commenced to act. Ninety-nine midwives had their names removed from the County Register for the following reasons :— 4 died, 46 left the County area, and 49 ceased to practise.

"Trained" midwives now number 656, or 85·4 per cent. of the total on the County register; the "bonâ-fides" or "untrained" number 112 or 14·6 per cent. Twenty-two years ago the untrained midwives represented 83 per cent. of the whole.

In 1928 the Minister of Health appointed a Committee to consider the working of the Midwives Acts, 1902 to 1926, with particular reference to the training of midwives (including its relation to the education of medical students in midwifery), and the conditions under which midwives are

employed. The development of maternity and child welfare services—both County and local—has had its effect on, and in the future will still further affect, the functions of the certified midwife. The establishment of ante-natal centres, the provision of free medical service for cases of abnormality, emergency or illness, the increasing use of hospitals and maternity homes for confinements all have their influence on the midwifery service. The midwife of the future will be expected to produce a higher standard of work, and perhaps very naturally, she in return will expect a higher rate of remuneration. During the year under report comparatively few applications were received from women desirous of training as midwives; in one instance, financial assistance was rendered to a woman who gave an undertaking to practise in a district where no certified midwife was then resident.

RECORDS FROM MIDWIVES.—The following statement shows the number of copy medical help records received by the County Public Health Department from certified midwives during 1928 :—

MEDICAL HELP RECORDS.

(1) In all cases in which a woman during pregnancy, labour, or lying-in, appears to be dying or is dead	1
(2) Pregnancy—	
Deformity or stunted growth	—
Loss of blood	152
Abortion or threatened abortion	228
Excessive sickness	42
Puffiness of hands or face	25
Fits or convulsions	5
Dangerous varicose veins	31
Purulent discharge	26
Sores of the genitals	2
Other abnormalities or complications	283
(3) Labour—	
Fits or convulsions	10
A purulent discharge	—
Sores of the genitals	—
A malpresentation	} 382
Presentation other than the uncomplicated head or breech	
Where no presentation can be made out	10
Where there is excessive bleeding	116
Where two hours after the birth of the child the placenta has not been completely expelled	121
In cases of rupture of the perineal body or of other injuries of the soft parts	1180
Other complications, including obstructed labour, uterine inertia, or requiring instrumental assistance	1765
(4) Lying-in—	
Fits or convulsions	5
Abdominal swelling and tenderness	1
Offensive lochia if persistent	—
Rigor with raised temperature	4
Rise of temperature to 100·4° F. for 24 hours or its recurrence within that period	139
Unusual swelling of the breasts with local tenderness or pain	13
Secondary post-partum hæmorrhage	3
White leg	1
Unsatisfactory progress or complications	82
(5) The Child—	
Injuries received during birth	—
Any malformation or deformity endangering the child's life	—
Dangerous feebleness in a premature or full-term child	256
Inflammation of, or discharge from, the eyes, however slight	281
Serious skin eruptions, especially those marked by the formation of watery blisters... ..	26
Inflammation about, or hæmorrhage from, the navel	14
Other complications	212
Total	5416

The number of copy medical help records is in excess of any previous year, and represents 39·2 per cent. of the total cases attended by midwives during 1928. In 1927 the percentage was 37, and 34 per cent. in 1926 and 1925. In the year 1907 the percentage was only 4.

“Trained” midwives attended 11,827 births, and called in medical assistance in 40·6 per cent. of their cases; “untrained” midwives attended 1,972 cases, and medical assistance was sought by them in 30·8 per cent. of their cases.

PAYMENT OF DOCTORS' FEES.—EMERGENCY CASES.—Under the Midwives Act, 1918, the number of accounts received in 1928 from medical practitioners called in by certified midwives in “cases of emergency” as defined by the Central Midwives Board's Rules was 2,292, the amount involved being £3,554 19s. 0d. The total number of occasions on which midwives summoned doctors was 5,416. In the year 1927 doctors' accounts numbered 1,886 out of 5,113 calls.

The total payments to doctors under this Act to the 31st December, 1928, amounted to £15,709 3s. 0d.; by the operation of the “scale of family income” adopted by the County Public Health Department, £13,493 17s. 7d. of the total amount had to be borne by the County Council; of the remaining £2,215 5s. 5d. a sum of £2,083 3s. 8d. or 94 per cent. has, up to the present date (July, 1929) been recovered by the County Public Health Department.

NO RECOVERY IN EYE CASES.—As suggested by the Ministry of Health in Circular 617a, the County Council, on the recommendation of the Midwives Act Committee, passed a resolution authorising the Public Health Department to refrain from exercising the power of recovery of the fees paid by the County Council to medical practitioners called in by certified midwives in cases of inflammation of, or discharge from the eyes of infants. The amount involved in 1928 in respect of 91 cases was £110 11s. 0d.

STILL-BIRTHS—The following statement compares 1928 with the preceding two years, giving the percentage of still-births reported by midwives practising in the County area to the total births attended by them :—

Year.	No. of Births attended by Certified Midwives practising in County area.	No. of Still-births reported by Certified Midwives.	Percentage of Still-births reported by Midwives to total births attended by them.
1926	14,713	308	2.09
1927	13,546	384	2.83
1928	13,799	382	2.76

SUMMARY OF RECORDS FROM MIDWIVES.—The following table gives the number of Records, &c., received from the certified midwives practising in the County during the year 1928, and the preceding two years :—

	1926.	1927.	1928.
Records of sending for medical help ...	4991	5113	5416
Still-births ... Males ... Females	167 } 308 141 }	221 } 384 163 }	200 } 382 182 }
Deaths of Mother or Child ... Mother Child ...	37 } 256 219 }	48 } 280 232 }	27 } 290 263 }
Substitution of artificial for breast feeding ...	118	131	132
Liability to be a source of infection ...	117	126	150
Laying-out the dead ...	40	57	59

NUMBER OF CONFINEMENTS ATTENDED BY CERTIFIED MIDWIVES.—The following table shows the number of births attended by midwives in the County area during the year 1928, and the percentage to total births, compared with 1927 and 1926 :—

Year.	Total Births in County area.	No. of Births attended by Certified Midwives.	Percentage of Births attended by Midwives to total Births.
1926	27,944	14,713	52.6
1927	26,263	13,546	51.5
1928	26,390	13,799	52.2

*In the year 1928, 13 midwives attended over 100 cases.
21 " between 75 & 100 "
45 " " 50 & 75 "
117 " " 25 & 50 "
242 " " 5 & 25 "
164 " less than 5 cases.

*Midwives on the County Register as "practising" but who did not actually attend any cases during the year are excluded, and the figures also exclude the births attended by midwives residing in County Boroughs who take only an occasional case in the County area.

PUERPERAL FEVER AND PUERPERAL PYREXIA.—The Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926.—These Regulations came into operation on the 1st October, 1926.

Puerperal pyrexia is defined as "any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease (Notification) Acts), occurring in a woman within 21 days after childbirth or miscarriage in which a temperature of 100.4°F or more has been sustained during a period of 24 hours, or has recurred during that period."

Under the Infectious Disease (Notification) Act a medical practitioner is required to notify to the local Medical Officer of Health on a form of Certificate contained in part I of the schedule to the new Regulations, any case of puerperal fever occurring in any person upon whom he is in attendance, and under these Regulations he is required to notify on the form in the second schedule to these Regulations any case when he first becomes aware that any woman on whom he is in attendance is suffering from puerperal pyrexia.

The District Medical Officer of Health is required to forward a copy of every notification (both puerperal fever and puerperal pyrexia) received by him under the Regulations to the Medical Officer of Health of the County within 24 hours.

Under the Regulations the following notifications were received during 1928, and for comparison the 1927 totals are given:—

	Puerperal Fever.			Puerperal Pyrexia.		
	Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Cases attended at childbirth solely by certified midwives... ..	25	6	24·0	67	3	4·47
Cases in which midwives acted as nurses under the supervision of medical practitioners ...	34	9	26·4	52	4	7·69
Cases in which certified midwives were not in attendance ...	26	6	23·0	58	4	6·89
Total 1928	85	21	24·7	177	11	6·21
Total 1927	68	9	13·2	197	14	7·1

The deaths from puerperal fever and puerperal pyrexia reported in connection with the work under the Midwives Acts, do not correspond with the deaths classified by the Registrar-General in his annual statistics under the heading "puerperal sepsis," the discrepancy probably being due to the inclusion under the latter head of deaths from certain conditions of the puerperal state which have not hitherto been reported under the Notification Act.

SPECIAL ASSISTANCE UNDER THE PUERPERAL FEVER, &C. REGULATIONS.—Maternity and Child Welfare Authorities, i.e., the County Council and the Local Authorities carrying out Child Welfare work are empowered, with the sanction of the Minister to make provision for (1) the special treatment of women suffering from puerperal pyrexia, (2) for consultation with an obstetric specialist, (3) for skilled nursing, or (4) for institutional treatment.

The County Public Health Department have made arrangements under which the services of the following specialists are available for consultation:—

Dr. R. Y. Aitken,
Oakfield,
Blackburn.

Dr. Jeffrey Ramsey,
53, Preston New Road,
Blackburn.

Dr. S. English,
184, Promenade,
Blackpool.

Dr. R. W. Beesley,
135, Deane Road,
Bolton.

Dr. A. Callum,
345, Colne Road,
Burnley.

Dr. J. W. Burns,
75, Rodney Street,
Liverpool.

Dr. C. Philip Brentnall,
18, St. John Street,
Manchester.

Dr. D. Dougal,
11, South John Street,
Manchester.

Dr. Gordon Fitzgerald,
Northern Assurance Buildings,
Albert Square,
Manchester.

Dr. F. H. Lacey,
16, St. John Street,
Manchester.

Dr. W. Fletcher Shaw,
20, St. John Street,
Manchester.

Dr. F. W. Collinson,
32, Winckley Square,
Preston.

Dr. A. A. Gemmell,
28, Rodney Street,
Liverpool.

Dr. A. Leyland Robinson,
57, Rodney Street,
Liverpool.

Dr. J. St. George Wilson,
31, Rodney Street,
Liverpool.

Dr. W. R. Addis,
2, St. John Street,
Manchester.

Dr. K. Vernon Bailey,
2, St. John Street,
Manchester.

Dr. W. Hirst Bateman,
Daisy Bank,
Rochdale.

Dr. A. S. Gordon,
33, Queen's Road,
Southport.

Dr. W. A. Mackay,
46, Hoghton Street,
Southport.

Dr. R. O. Bowman,
Lightburne House,
Ulverston.

Dr. Graham W. Christie,
Princes Street,
Ulverston.

For bacteriological examinations of lochia and blood, facilities are available at the Public Health Laboratory of the Manchester University.

Arrangements have been made with many hospitals in the County for the admission of cases of puerperal fever and puerperal pyrexia, and also with District Nursing Associations and Nursing Homes for the provision of trained nurses.

The statement below shows the special assistance rendered during 1928 by the County Council, and by the Local Authorities which are Child Welfare Authorities.

In districts where the County Council is the "Local Authority." P.F.—Removal to hospital, 15 cases ; second opinion, 1 case ; trained nurse provided, 3 cases ; examination of lochia and blood, 2 cases.

P.P.—Removal to hospital, 13 cases ; second opinion, 12 cases ; trained nurse provided, 5 cases ; examination of lochia and blood, 1 case.

In districts where the Town or District Council is the "Local Authority." P.F.—Removal to hospital, 14 cases ; second opinion, 2 cases ; trained nurse provided, 3 cases ; examination of lochia and blood, 1 case.

P.P.—Removal to hospital, 30 cases ; second opinion, 13 cases ; trained nurse provided, 7 cases ; examination of lochia and blood, 3 cases.

OPHTHALMIA NEONATORUM.—The Public Health (Ophthalmia Neonatorum) Regulations, 1926. By notifications under these Regulations, and by medical help records received from certified midwives, 366 cases of inflammation of, or discharge from, the eyes came under notice ; of these, 191 were notified as ophthalmia neonatorum. In the previous year these figures were 381 and 211 respectively. Of the 191 ophthalmia neonatorum cases in 1928, 38 were doctors' cases, that is, no certified midwife was in attendance, or, if present, only in the capacity of nurse.

SPECIAL ASSISTANCE UNDER THE OPHTHALMIA NEONATORUM REGULATIONS.—Below is a statement showing the special assistance rendered by the County Council and by the Local Child Welfare Authorities :—

In districts where the County Council is the "Local Authority." Removal to hospital, 8 cases ; trained nurse provided, 4 cases.

In districts where the Town or District Council is the "Local Authority." Removal to hospital, 17 cases ; trained nurse provided, 13 cases.

In the area under the charge of the County Council for child welfare purposes, it is a standing instruction to the nursing staff, who visit the homes in all notified cases of ophthalmia neonatorum, &c., that in virulent cases where no other expert nursing is available, the nurse may put aside all other work until the eyesight of the child is beyond danger or past cure.

The table below is collated from information supplied by the local Medical Officers of Health in their Annual Reports :—

OPHTHALMIA CASES.			Vision unimpaired.	Vision impaired.	Total blindness.	Deaths.
Number notified.	Treated at home.	Treated at hospital.				
191	146	45	179	5	2	4

(One case left a district, address unknown).

With the object of ascertaining the *present* condition of the eyes, i.e., whether normal or defective, and if the latter, whether serious damage to vision has resulted from the infection, the children notified in the County during recent years as suffering from ophthalmia neonatorum, &c., have been, from time to time re-visited, either by the County health visitors, or by the staff of the local health authority. The table below shows the results of these enquiries as regards the cases reported during the five years 1923–1927.

NOTIFIED DURING—	YEAR 1923.		YEAR 1924.		YEAR 1925.		YEAR 1926.		YEAR 1927.	
	*All “eye cases.”	Notified as Oph. Neon.	*All “eye cases.”	Notified as Oph. Neon.	*All “eye cases.”	Notified as Oph. Neon.	*All “eye cases.”	Notified as Oph. Neon.	*All “eye cases.”	Notified as Oph. Neon.
Total number of “Eye Cases” reported to the Local Supervising Authority under the Midwives Acts	372	...	328	...	299	...	344	...	381	...
Total number of cases notified as Ophthalmia Neonatorum	...	208	...	154	...	147	...	172	...	211
Information regarding condition of eyes after a lapse of from 2 months to 3 years from date of first report :										
Totally Blind ...	...	...	1	1	...	...	...	...	...	...
One eye blind ...	...	...	...	...	...	...	...	...	...	...
R. Blind—L. Keratitis ...	...	...	...	...	...	...	...	...	...	...
R. Blind—L. Nebula ...	...	...	...	...	...	...	...	...	1	1
L. Blind—R. Nebula ...	...	...	...	...	...	...	...	...	...	...
R. Blind—L. Weak ...	...	...	2	2	...	...	...	...	...	...
L. Blind—R. Weak ...	...	...	...	...	...	...	...	...	...	...
R. Blind—L. Normal ...	...	...	2	2	1	1	...	...	...	...
L. Blind—R. Normal ...	...	...	1	1	3	3	...	...	...	...
R. Blind—L. Myopia ...	...	...	...	...	...	...	...	...	...	...
L. Blind—R. Defective ...	...	...	...	...	...	...	...	...	...	...
Congenital Anophthalmos ...	...	...	1	...	...	...	1	...	...	...
Nebula (both eyes) ...	1	1	...	...	...	...	...	...	...	...
R. Nebula—L. Normal ...	1	1	1	1	...	...	2	1	...	...
L. Nebula—R. Normal ...	1	1	...	...	...	...	1	1	1	1
L. Large opacity—R. Normal ...	1	1	1	1	...	...	...	...	...	...
Slight opacity (one eye) ...	...	...	...	...	...	...	2	2	1	...
Corneal opacity (both eyes) ...	...	...	...	...	...	...	...	...	...	...
Squint (both eyes) ...	...	...	...	...	...	...	...	...	...	...
R. Squint—L. Normal ...	...	...	...	...	...	...	3	2	...	...
R. Squint—L. Nebula ...	1	1	...	...	...	...	...	...	...	...
L. Squint—R. Normal ...	...	...	...	...	2	1	2	1	...	...
Marked internal squint ...	...	...	...	...	...	...	...	...	...	...
R. Squint, eyes discharging ...	...	...	...	...	...	...	...	...	...	...
R. Squint, corneal opacity—L. Normal ...	...	...	...	...	...	...	1	1	...	...
L. Squint, nebula—R. Normal ...	...	...	...	...	...	...	1	1	...	...
R. Weak—L. Normal ...	2	2	...	...	1	1	...	...	...	...
L. Weak—R. Normal ...	1	...	4	1	...	...	...	...	...	...
Both eyes weak ...	11	7	1	...	5	4	...	...	1	1
Occasional Conjunctivitis ...	1	...	...	...	2	2	1	...	5	2
Eyes discharging ...	4	2	1	1	...	...	...	...	...	...
Eyelids inflamed ...	...	...	...	...	...	...	...	...	...	...
L. Blepharitis—R. Normal ...	2	1	1	...	...	...	1	1	...	...
Blepharitis (both eyes) ...	2	...	...	...	1	1	1	...	1	...
R. Defective ...	...	...	...	...	...	...	...	...	...	...
L. Defective ...	...	...	...	...	...	...	1	1	...	...
Vision unsatisfactory ...	...	...	...	...	...	...	...	...	...	...
Myosis ...	...	...	...	...	...	...	...	...	...	...
L. Normal—R. Cataract ...	...	...	...	...	1	1	...	...	...	...
Adherent iris ...	...	...	...	...	...	...	...	...	...	...
L. Ptosis—R. Normal ...	...	...	...	...	...	...	...	...	...	...
Eyes normal ...	299	166	234	107	229	97	254	123	311	170
Children deceased ...	30	16	39	19	32	21	35	20	26	17
Left district, no information, or still under treatment ...	15	9	39	18	22	15	38	18	34	19
	372	208	328	154	299	147	344	172	381	211

*Includes all cases in which Certified Midwives called in medical practitioners on account of inflammation of, or discharge from, the eyes.

PEMPHIGUS NEONATORUM.—Sixteen cases of this disease were notified by certified midwives; prompt measures were taken to prevent further spread.

DISCIPLINARY MEASURES.—The disciplinary action taken during 1928 is shown in the following table. The number of charges of negligence or misconduct against the certified midwives practising in the County area was 29, compared with 58 in the preceding year, and 55 in 1926. A number of minor breaches of the Rules were also dealt with.

	Total No. of charges.	Result of action taken.				
		Struck off the Roll.	Sur- rendered Certifi- cate and name removed from Roll.	Ap- peared before Mid- wives Act Com- mittee and severely censured.	Cau- tioned by letter.	Cen- sured by County Medical Officer.
Puerperal fever and puerperal pyrexia cases	5	—	—	—	4	1
Ophthalmia neonatorum cases	21	—	—	—	21	—
Other offences	3	—	—	—	3	—

INSPECTION OF MIDWIVES.—With the object of improving the standard of practice of the midwives, periodical visits of inspection are undertaken by the County Inspector of Midwives, and visits of enquiry are made regarding cases of puerperal septicaemia, ophthalmia neonatorum, pemphigus, &c., where a certified midwife has been in attendance. When necessary, special investigations are carried out by the Assistant County Medical Officers of Health, or by the County Inspector, or by the Health Visitors.

GRANTS, &C.—DISTRICT NURSING ASSOCIATIONS.—COMPENSATION, &C. TO MIDWIVES.—A sum of £206 4s. 0d. was allocated during the year 1928 to District Nursing Associations on account of the midwifery and maternity nursing work carried out by them, £146 4s. 0d. being the amount of the “grant” made by the Ministry of Health, the balance being supplied from the County funds. In one district the County Council provide means of conveyance and give a small fee to midwives for attending cases in outlying areas. A sum of £18 15s. 2d. was paid by the County Council to midwives as compensation for loss of practice whilst under “suspension” on account of contact with infectious disease.

UNCERTIFIED WOMEN ACTING AS MIDWIVES.—Complaints were received during the year 1928 from seven districts that women not certified under the Midwives Acts were attending women in childbirth otherwise than under the direction of a medical practitioner. Enquiries were made in each instance, and appropriate action taken.

Maternal Mortality.—The following table gives particulars of the maternal mortality associated with child-birth in the County area during the year 1928 and in the ten preceding years, contrasted with the rates of England and Wales:—

Year.	ADMINISTRATIVE COUNTY.						ENGLAND AND WALES.		
	No. of Births.	No. of Deaths.		Mortality per 1000 births.			Mortality per 1000 births.		
		Child- birth (Mothers)	Puer- peral Sepsis.	Child- birth (Mothers)	Puer- peral Sepsis.	Total.	Child- birth (Mothers)	Puer- peral Sepsis.	Total.
1918	27,736	112	44	4.04	1.59	5.63	2.51	1.28	3.79
1919	28,799	92	57	3.19	1.98	5.17	2.70	1.67	4.37
1920	39,767	117	81	2.94	2.04	4.98	2.52	1.81	4.33
1921	36,558	128	58	3.50	1.59	5.09	2.53	1.38	3.91
1922	32,011	97	56	3.03	1.75	4.78	2.43	1.38	3.81
1923	30,672	94	42	3.06	1.37	4.43	2.51	1.30	3.81
1924	29,519	103	46	3.49	1.56	5.04	2.51	1.39	3.90
1925	34,713	108	41	3.80	1.44	5.24	2.52	1.56	4.08
1926	27,944	117	70	4.19	2.51	6.70	2.52	1.60	4.12
1927	26,263	90	40	3.43	1.52	4.95	2.54	1.57	4.11
1928	26,390	104	56	3.94	2.12	6.06	2.63	1.79	4.42

Figures extracted from the Annual Reports of the Registrar-General.

The following table compares the maternal mortality rate (covering a period of five years 1924–1928) of certain manufacturing, mining, agricultural and residential areas of the Administrative County :—

		No. of Districts in the Groups.	5 Years, 1924—1928.			Mortality per 1,000 births.		
			No. of Births.	No. of Deaths.		Puer-peral Sepsis.	Other accidents and diseases of Pregnancy.	Total.
				Puer-peral Sepsis.	Other accidents and diseases of Pregnancy.			
Manufacturing areas	...	21	28,031	58	123	2·06	4·38	6·45
Mining areas	... ..	16	16,202	21	65	1·29	4·01	5·30
Agricultural areas	... ..	19	9,221	32	69	1·23	2·71	3·94
Residential areas	... ..	9	4,757	8	17	1·68	3·57	5·25

On the 23rd April, 1928, the Minister of Health issued to Maternity and Child Welfare Authorities Circular 888 on the subject of maternal mortality, “ the continued high level of which causes him much concern.” The Minister has expressed the opinion that there should be an investigation in every area by a competent and experienced medical officer, of all maternal deaths, and of all cases of puerperal fever, with a view to ascertaining more exactly the actual causes which lead to maternal mortality in order to provide further means of prevention.

In June, 1928, the Minister appointed a Committee on Maternal Mortality, the terms of reference being :—“ To advise upon the application to maternal mortality and morbidity of the medical and surgical knowledge at present available, and to inquire into the needs and direction of further research work.” This Committee will survey the practice of midwifery as a whole in order to see how and where this does not conform to the best standard.

The latter Committee drew up a questionnaire with a view to securing uniformity in the method of investigating the maternal deaths. In the County area these investigations are carried out by the County Medical Staff except in districts where there is a whole-time Medical Officer of Health. Each death has been very carefully investigated and a full report thereon forwarded to the Ministry of Health. To date, August, 1929, 39 deaths have been enquired into by the County staff, and 15 others referred for enquiry to local Medical Officers of Health.

The Nursing Homes Registration Act, 1927.—REGISTRATION OF NURSING AND MATERNITY HOMES.—Under this Act the County Council has delegated its powers and duties to the Town or or District Councils in 16 Municipal Boroughs and 2 Urban Districts, viz. :—

Municipal Boroughs :—

Accrington	Darwen	Lytham Saint Anne's
Ashton-under-Lyne	Eccles	Middleton
Bacup	Heywood	Morecambe and Heysham
Chorley	Lancaster	Nelson
Clitheroe	Leigh	Rawtenstall.
Colne		

Urban Districts :—

Stretford	Swinton and Pendlebury.
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From the area under the jurisdiction of the County Council, 90 applications for registration were received (to June, 1929), and dealt with as follows :—

Certificate of Registration issued	...	...	...	...	74
(9 subsequently cancelled by request)					
Applications withdrawn	...	...	...	...	14
(Unable to comply with standard laid down)					
Applications refused	...	...	...	...	2
(Unsuitable premises)					

The following table shows the districts in the area under the jurisdiction of the County Council from which the applications have been received :—

District.	Total Applications.	Certificates of Registration issued.	Applications	
			Withdrawn.	Refused.
Barrowford	2	2	...	...
Clayton-le-Moors	2	*2	...	...
Crompton	2	2	...	...
Farnworth	2	2	...	...
Fleetwood	4	†4	...	...
Formby	3	3	...	...
Fulwood	5	4	1	...
Grange-over-Sands	1	*1	...	...
Great Crosby	4	4	...	...
Great Harwood	2	1	1	...
Horwich	2	2	...	...
Huyton-with-Roby	1	*1	...	...
Irlam	1	...	1	...
Kearsley	1	1	...	...
Kirkham	1	1	...	...
Litherland	1	1	...	...
Little Hulton	1	...	...	1
Longridge	1	1	...	...
Ormskirk	1	1	...	...
Padiham	3	2	1	...
Prestwich	3	2	1	...
Radcliffe	1	1	...	...
Ramsbottom	2	1	1	...
Standish-with-Langtree	1	1	...	...
Thornton Cleveleys	4	*3	1	...
Tottington	3	2	1	...
Turton	2	1	1	...
Ulverston	6	*4	2	...
Urmston	1	...	1	...
Waterloo-with-Seaforth	14	†13	1	...
Whitefield	1	...	...	1
Whitworth	1	1	...	...
Widnes (B)	1	1	...	...
Worsley	1	1	...	...
Burnley (R)	1	1	...	...
Chorley (R)	1	1	...	...
Fylde (R)	1	1	...	...
Lunesdale (R)	1	1	...	...
Preston (R)	2	2	...	...
Sefton (R)	1	1	...	...
Warrington (R)	1	...	1	...
West Lancashire (R)	1	1	...	...
	90	74	14	2

* One subsequently cancelled.

† Two subsequently cancelled.

MATERNITY AND CHILD WELFARE IN THE COUNTY.

County Council Child Welfare Scheme.—The County Council's Child Welfare area comprises 77 districts, the urban district of Oswaldtwistle being included during the year 1928. The urban district of Heysham was amalgamated with the Borough of Morecambe as from 1st April, 1928, but remains within the scheme as the County Council is the Child Welfare Authority for the borough. From these 77 districts copy notification of births received in 1928 by the County Medical Officer of Health under the provisions of the 1915 Act numbered 9,788. The actual number of births registered in these districts was 10,765.

In the remaining 42 County districts, the Local Sanitary Authorities are responsible for Maternity and Child Welfare work.

Child Welfare work is therefore divided as follows:—

	Estimated population.	No. of births registered in 1928.
Undertaken by the County Council—in 77 districts (1 borough, 57 urban, and 19 rural districts) ...	700,695	10,765
By Local Sanitary Authorities—in 42 districts (18 boroughs and 24 urban districts) ...	1,108,425	15,625
	1,809,120	26,390

The arrangements for co-ordination have been fully described in previous Annual Reports. The Assistant School Medical Officers are Assistant Medical Officers of Health for the County, and are in touch with the Medical Officers of Health of the local Sanitary Authorities in their respective districts. The School Nurses are also Health Visitors. The following table shows the work done by the Nurses as Health Visitors during the year 1928:—

HOME VISITS—

(Infants under one year)—

No. of 1st visits	10,208
No. of re-visits	42,651

(Children 1—5 years of age)—

No. of visits	34,312
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ANTE-NATAL WORK—

(Expectant Mothers)—

No. of 1st visits	2,068
No. of re-visits	2,097

OTHER VISITS—

Special visits to older children ; to Medical Officers of Health ; &c.	1,416
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VISITS TO CASES OF OPTHALMIA NEONATORUM AND OTHER MATTERS ...	516
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COUNTY COUNCIL CHILD WELFARE CENTRES.—During the year two new Child Welfare Centres were opened or taken over from Local Authorities which had joined the County Council's scheme for Maternity and Child Welfare, and the list of those which have now been established is as follows:—

Abram	Clayton-le-Moors	Kirkham	Poulton-le-Fylde
Adlington	Clifton	Leyland (2)	Prescot
Aspull	Coppull	Little Lever	Rishton
Atherton	Crompton	Littleborough	Skelmersdale
Audenshaw	Dalton-in-Furness	Longridge	Standish
Barrowford	Davyhulme	Litherland	Thornton
Bamber Bridge	Droylsden	Milnrow	Tottington
Billinge	Feniscowles	Morecambe (B.)	Ulverston
Blackrod	Fleetwood (2)	Norden	Urmston
Briercliffe	Flixton	Ormskirk	Walkden
Bromley Cross	Haydock	Orrell	Waterloo
Burtonwood	Irlam (2)	Oswaldtwistle (2)	Whitefield
Church	Kearsley	Padiham	Whitworth

Some of these Child Welfare Centres have been taken over from Local Sanitary Authorities which had previously established them, and in a few of these cases the visiting Medical Officer is the local Medical Officer of Health. In all cases, however, the Health Visitor and Superintendent Nurse of the Welfare Centre has become a School Nurse for her district in the County.

Voluntary Helpers, as in the past, continue to do good work at these Centres. Instruction in mothercraft is given to older girls from elementary schools in the districts of Leyland, Longridge, Urmston, and other districts, on a definite plan arranged between the Elementary Education Department and the Medical Department. The instruction is systematic and is a very valuable training for older girls in some of their future responsibilities.

The following is a list of the Child Welfare Centres established by the County Council :—

District.	Address of Child Welfare Centre.	Day and Time Open.	Medical Officer.	Nurse.
Abram	Near Council Offices, Abram	Alternate Wed., 2.30— 4.30 and for sale of food on other Wed. from 10.30 to noon	Dr. Erskine ...	Miss Unsworth
Adlington	Wesleyan Sunday School, Market Street	Wednesday, 2—4 ...	Dr. Johnstone	Miss Kennedy
Aspull (New Springs)	Ind. Methodist Sunday School, New Springs	Wednesday, 2—4 ...	Dr. Hall ...	Miss Evans
Atherton	Formby Hall	Wednesday, 2-15—3-30	Dr. Leigh	Miss Valentine and Miss Smith
Audenshaw	“Westernlea,” Denton Road	Monday, 2—4	Dr. Cronk ...	Miss Dickinson
Barrowford	Congl. Sunday School, Hill Top	Thursday, 2—4 ...	Dr. Corbett ...	Miss Wright
Bamber Bridge (Walton-le-Dale)	Conservative Club, Cranborne Road	Thursday, 2—4 ...	Dr. Johnstone	Miss Canton
Billinge	Conservative Club ...	Wednesday, 10—12 noon	Dr. Wright ...	Miss Singleton
Blackrod	Church House Institute	Tuesday, 2—4 ...	Dr. Galloway	Miss Evans
Briercliffe (Burnley, R.)	Tennyson Street Mission Hall	Alternate Wednesdays, 2.30—4	Dr. Corbett ...	Miss Mares
Bromley Cross (Turton)	Birtenshaw Wes. Sunday School, Darwen Road	Monday, 2.30—4.30 ...	Dr. Jagger ...	Miss Lynch
Burtonwood (Warrington, R.)	Church Hall	Thursday, 10—12 ...	Dr. Crawford ...	Mrs. Birchall
Church	Baptist Sunday School, Ernest Street	Thursday, 2—4 ...	Dr. Holroyd ...	Miss Fawcett
Clayton-le-Moors ...	Town Hall	Thursday, 2—4 ...	Dr. Holroyd ...	Mrs. Gray
Clifton (Barton-upon- Irwell, R.)	Parish Rooms, Rake Lane	Wednesday, 2.30—4.30	Dr. Davidson	Miss Dunn
Coppull (Chorley, R.)	Wesleyan Sunday School, Chapel Street	Thursday, 2—4 ...	Dr. Johnstone	Miss Beach
Crompton	Town Hall	Wednesday, 2—4 ...	Dr. Porter ...	Miss MacDonald
Dalton-in-Furness ...	Carnegie Library ...	Thursday, 2—4 ...	Dr. Tomb ...	Miss Tomkinson
Davyhulme (Barton- upon-Irwell, R.)	Parish Offices, Talbot Road	Monday, 2.30—4 ...	Dr. Davidson	Mrs. Chambers
Droylsden	Wesleyan Schools, Manchester Road	Tuesday, 2—4 ...	Dr. Cronk ...	Mrs. Hutchinson
Feniscowles (Blackburn, R.)	Mission Hall, Preston Old Road	Tuesday, 2—4	Dr. Holroyd ...	Mrs. Beckett
Fleetwood	(1) Orient Buildings, Station Road	Tuesday, 2—4 ...	Dr. Batty ...	Mrs. Dewhurst
„	(2) „ „ „ ...	Wednesday, 2—4 ...	Dr. Batty ...	Miss Knowles
Flixton (Barton-upon- Irwell, R.)	The Institute, Flixton Road	Tuesday, 2.30—4 ...	Dr. Davidson	Mrs. Chambers
Haydock	Wesley Sunday School, Clipsley Lane	Wednesday, 2—4 ...	Dr. Crawford ...	Miss Hodgson

District.	Address of Child Welfare Centre.	Day and Time Open.	Medical Officer.	Nurse.
Irlam	Longfield Lodge, Cadishead	Alternate Wednesdays, 2—4	Dr. Roberts ...	Mrs. Smith
„	Irlam Hall, Irlam			
Kearsley	New Jerusalem School, Greenwood Street	Thursday, 2—4 ...	Dr. Jagger ...	Miss Dunn
Kirkham	Ambulance Rooms, Mellor Road	Thursday, 2—4 ...	Dr. Wray ...	Miss Smith
Leyland	(1) Bradshaw Street Mission Room	Alternate Wednesdays, 2—4	Dr. Wray ...	Miss Rigby
„	(2) Congl. Schools, Quin Street	Thursday, 2.30—4 ...	Dr. Wray ...	Miss Rigby
Little Lever	Church House Institute	Thursday, 2.30—4 ...	Dr. Hutchinson	Miss Wellard
Littleborough	Rockley House ...	Thursday, 2—4 ...	Dr. Topping ...	Miss Sizer
Longridge	Drill Hall	Tuesdays, 2—4	Dr. Wray ...	Mrs. Hoey
Litherland	32, Linaere Road ...	Tuesday, 2—4 ...	Dr. Barker ...	Miss Robinson Miss Shaw
Milnrow	Free Library	Tuesday, 2—4 ...	Dr. Topping ...	Miss Sizer
Morecambe (B)	West End Wesleyan Sunday School	Monday, 2—4	Dr. Tomb ...	Miss Menzies
Norden	Liberal Club	Wednesday, 2—4 ...	Dr. Topping ...	Miss Cubbin
Ormskirk	Church House, Church Street	Monday, 2—4	Dr. Barker ...	Miss Dickinson
Orrell... ..	Council Offices	Monday, 2—3 (Milk) Thursday, 3—4-30 C.W.C.	Dr. Galloway ...	Miss Singleton
*Oswaldtwistle	Barnfield House... ..	Tuesday, 2—4	Dr. Townley ...	Miss Townend
„	Conservative Club, Belthorn	Quarterly	Dr. Townley ...	Miss Townend
Padiham	West Bank House ...	Tuesday, 2.30—4 ...	Dr. Corbett ...	Mrs. Read
Poulton	St. Chads' Church Hall	Alternate Tuesdays, 2—4	Dr. Johnstone	Miss Procter
Prescot	Old Grammar School, High Street	Alternate Mondays and each Thursday, 2—4	Dr. Wright ...	Miss Walters Miss Heseltine
Rishton	108, High St.	Tuesday, 2—4	Dr. Holroyd	Miss Fawcett
Skelmersdale	Congregational Schools, Witham Street	Wednesday, 10—12-30	Dr. Gray ...	Miss Fry
Standish	Wesleyan Sunday School	Wednesday, 2—4 ...	Dr. Johnstone	Miss Irving
Thornton	Primitive Meth. Sunday School, Fleetwood Rd.	Thursday, 2—4 ...	Dr. Batty ...	Miss Procter
Tottington	Council Offices	Wednesday, 2.30—4 ...	Dr. Hutchinson	Mrs. Hilton
Ulverston	“ The Rookery ”	Wednesday, 2—4 ...	Dr. Tomb ...	Miss Holmes
Urmston	Co-operative Hall, Higher Road	Wednesday, 2—4 ...	Dr. Scholefield	Miss Lawley
Walkden (Worsley)	Town Hall, Walkden ...	Thursday, 2.30—4 ...	Dr. Scholefield	Miss Murphy
Waterloo (Limehurst R.)	United Methodist Sunday School	Alternate Thursdays, 2—4	Dr. Porter ...	Mrs. Stringer
Whitefield	“ Uplands ”	Tuesday, 2.30—4 ...	Dr. Hutchinson	Mrs. Tregarthen
Whitworth	Registry Office, Station Road, Facit	Thursday, 2.45—4 ...	Dr. Forbes ...	Miss Cubbin

* Taken over by County Council from Local Authority, 1st April, 1928.

COUNTY BRANCH CENTRES FOR SUPPLY OF DRIED MILK.

District.	Address of Centre.	Day and Time Open.	Nurse.
Great Crosby	57, York Avenue ...	Wednesday, 2—4 ...	Mrs. Palin
Lathom and Burscough ...	Council Offices	Friday, 1—2	Miss Dickinson

The following table gives a statistical summary of the work done in the County Council Child Welfare Centres during 1928, together with the number of births notified during the year :—

Name of Child Welfare Centre.	No. of Times Open.	No. of Births Notified during the 12 months.	No. of individual children attending.			No. of attendances by children.			No. of attendances by expectant mothers.		No. of attendances by other women.	
			Under 1 year old.	From 1—2 years old	Over 2 years old.	Under 1 year old.	From 1—2 years old	Over 2 years old.	No. of individual expectant mothers attending.	No. of actual attendances.	No. of individual women attending.	No. of actual attendances.
Abram	24	118	89	40	52	630	264	327	17	54	28	52
Adlington	46	62	65	44	65	733	536	887	6	75	30	262
Aspull (New Springs)	47	145	189	79	17	1788	759	88	54	182	20	147
Audenshaw	48	103	138	98	81	1589	579	476	7	25	12	284
Bamber Bridge ...	48	59	106	60	118	777	492	784	30	169	100	312
Barrowford	48	70	72	48	59	520	138	203	7	16	19	25
Billinge	48	56	49	58	53	459	417	371	18	83	20	77
Blackrod	48	64	51	44	14	380	482	93	7	22	15	69
Briercliffe	23	17	41	30	34	277	105	182	3	11	4	7
Bromley Cross ...	47	15	95	50	102	655	212	270	16	46	27	260
Burtonwood	48	42	44	30	24	410	231	128	6	19	12	92
Church	46	69	112	67	50	1118	310	468	6	24	15	144
Clayton-le-Moors ...	46	149	83	45	31	746	385	317	13	72	26	239
Clifton	47	23	33	23	15	648	409	261	3	41	7	55
Coppull	46	86	101	50	72	994	492	635	36	132	11	428
Crompton	47	179	153	94	38	1701	711	301	9	19	31	48
Dalton-in-Furness ...	48	189	190	99	152	1512	924	1135	80	409	—	—
Davyhulme	43	33	44	23	20	423	218	197	6	43	4	19
Droylsden	48	168	300	120	103	4262	1005	641	12	48	21	323
Feniseowles	48	9	27	19	27	202	91	158	4	19	10	57
Fleetwood (No. 1) ...	47	476	144	69	68	1244	422	460	11	63	10	31
Fleetwood (No. 2) ...	48		283	113	136	2030	531	657	18	61	1	2
Flixton	45	99	116	66	61	1547	433	474	14	46	20	200
Haydock	48	252	128	39	30	1257	343	124	40	130	10	22
Irlam (Prim. Meth.)	24	226	140	60	27	1292	414	93	16	34	30	330
Irlam (Longfield L.)	24		135	63	36	1005	424	171	17	35	26	277
Kearsley	48	143	171	89	80	1508	676	225	9	58	10	74
Kirkham	48	71	109	64	31	866	443	171	7	28	15	92
Leyland (Brad. St.)	23	133	19	13	28	151	109	246	6	26	12	129
Leyland (Quin St.) ...	46		91	72	83	937	567	1115	11	72	17	456
Litherland	48	238	230	88	180	1720	589	1354	21	130	33	51
Littleborough	48	135	193	76	80	1776	422	340	16	54	10	65
Little Lever	48	66	77	34	16	816	235	54	13	32	53	121
Longridge	29	57	102	61	45	651	193	144	13	69	10	78
Milnrow	48	81	111	67	55	1330	524	250	8	44	6	59
Morecambe (B.) ...	48	153	196	99	45	1367	669	445	22	83	—	—
Norden	48	30	68	44	52	957	613	472	16	102	25	359
Ormskirk	48	131	108	58	67	1184	568	596	20	86	7	29
(a) Oswaldtwistle ...	36	161	95	38	26	654	221	43	12	66	67	1336
Padiham	47	167	106	43	47	804	198	296	4	10	13	15
Poulton-le-Fylde ...	25	39	51	26	30	295	140	128	3	19	20	25
Preseot	70	194	253	87	89	1966	611	616	93	172	19	64
Rishton	47	75	65	35	21	300	176	99	—	—	7	116
Skelmersdale	48	111	64	38	63	740	409	476	8	33	25	191
Standish	48	104	116	58	95	1082	621	719	20	93	64	181
Thornton	47	156	100	41	63	715	228	464	8	59	23	81
Tottington	47	67	81	46	49	753	278	240	5	23	7	61
Ulverston	48	123	150	102	122	1300	1089	1048	49	340	—	—
Urmston	48	99	49	16	27	492	125	119	4	30	30	79
Walkden	48	99	172	51	35	1596	306	121	4	5	48	184
Waterloo	28	38	59	31	19	414	153	93	1	6	13	31
Whitefield	44	86	131	70	40	1253	538	277	9	116	—	—
Whitworth	47	111	71	34	40	982	424	559	12	110	8	98

(a) Included in County Scheme for Maternity and Child Welfare Work as from 1st April, 1928.

SUPPLY OF MILK AND OTHER FOODSTUFFS.—During the year 1928, 539,783 pints of fresh milk were supplied directly to the recipients by milk purveyors, and the following tabular statement shows the amount of dried milks, cod liver oil, virol, etc., supplied at the Centres :—

No.	Units.	Article of Foodstuff.	Cost.		
			£	s.	d.
27,815	1 lb. packets	Cow and Gate	2,087	0	2
13,313	8 oz. tins	Virol	665	13	0
10,351	1 lb. packets	Glaxo	805	9	6
8,243	1 lb. cartons	Cod Liver Oil and Malt	318	16	9
5,423	1 lb. packets	Ambrosia	403	15	0
3,421	1 lb. packets	Ostermilk	259	2	4
3,168	1 lb. bottles	Horlick's Malted Milk	399	18	0
1,090	7 oz. tins	Virolax	53	19	4
1,122	1 lb. tins	Almata	109	7	3
906	8 oz. bottles	Aberdeen Emulsion	34	0	4
788	8 oz. tins	Ovaltine	53	3	10
684	1 lb. bottles	Cod Liver Oil Emulsion	44	11	6
578	4 oz. bottles	Cod Liver Oil	11	18	0
375	1 lb. packets	Irradiated Glaxo	28	5	0
410	1 lb. tins	Milkal	30	7	4
387	1 lb. jars	Radio Malt	25	18	3
233	... ..	Sacker's Combs	26	4	3
301	4 oz. tins	Laetagol	17	9	7
192	1 lb. tins	New Zealand Cream	23	2	0
176	8 oz. tins	Ostelin Malt	7	6	4
90	... ..	Booklets	1	10	0
165	1 lb. tins	Dextri Maltose	8	3	9
106	8 oz. bottles	Liquid Paraffin	3	11	6
29	1 lb. cartons	Vitamine Malt	1	5	7
31	4 oz. packets	Groats	0	7	9
79,397			£5,420	6	4

ANTE-NATAL CLINICS.—County Council Ante-natal Clinics are in operation at Irlam and Litherland. These have been established with the object

- (1) of reducing maternal mortality and morbidity which are still excessive ;
- (2) With the object of giving advice concerning the mother's diet, so that healthy babies will result from the pregnancies.

The importance of correct feeding during pregnancy cannot be too deeply impressed upon the mothers.

All recent research shows, to take one instance only, that the quality of the child's teeth depends to a large extent upon the mother's diet during pregnancy. Any determined onslaught on the prevention of dental caries would have to begin by treatment of or advice to the pregnant woman.

During the year expectant mothers were seen by the doctors or nurses at either ante-natal clinics or child welfare centres on 3,950 occasions.

Further particulars of the County Council's Clinics are given below :—

District.	Address of Ante-Natal Clinic	Day and Time Open.	Medical Officer.	Specialist Medical Officer.	Nurse.
Irlam ...	Longfield Lodge, Cadishead	Alternate Friday, 2—3 p.m.	Dr. E. Scholefield	Dr. C. P. Brentnall attends alternate sessions.	Mrs. G. Smith
Litherland	32, Linacre Road	Alternate Thursday, 2—3 p.m.	Dr. L. E. Barker	Dr. J. W. Burns, attends alternate sessions.	Miss M. Robinson. Miss E. Shaw.

Arrangements have also been made with the Boroughs of Widnes and Chorley for the attendance of expectant mothers from the adjacent County area at the Widnes and Chorley Ante-natal Clinics. The Widnes Clinic is held from 1.30 to 4.30 p.m. on the second and fourth Wednesdays in each month, and is attended by Dr. Willett, of Liverpool. The Chorley Clinic is held in the Public Health Office, 2 & 4, St. James' Square, Chorley, at 10 a.m. on the first Wednesday in each month, and is attended by Dr. V. K. Bailey, of Manchester.

MATERNITY HOMES.—The County Maternity and Child Welfare Sub-Committee have made arrangements with the following 18 Maternity Hospitals or Homes in which parturient women are admitted on such terms as they can afford, the County Council paying the balance of the fee :—Maternity Home, Whitegate Drive, Blackpool; Maternity Home, Fern Lea, Nelson; Maternity Home, Victoria Park, Warrington; Haslam Maternity Home, "Ravenswood," Chorley New Road, Bolton; Maternity Department, Whiston Infirmary, Prescott; Maternity Home, 51, Balliol Road, Bootle; District Infirmary and Children's Hospital, Ashton-under-Lyne; Bealey Maternity Home, Radcliffe; Rest Home, Chatham Street and Maternity Hospital, Liverpool; Memorial Hospital, Stretford; Corporation Maternity Hospital, Burnley; Corporation Maternity Hospital, Blackburn; Corporation Maternity Home, Leigh; Corporation Maternity Home, Colne; Ethel Gossage Maternity Home, Widnes; Union Maternity Home, Sharoe Green, Fulwood; Preston Royal Infirmary; and Corporation Maternity Home, Oldham.

To these Maternity Hospitals or Homes two types of cases are admitted, those in which there is any reason to anticipate an abnormal or dangerous labour and those whose home surroundings are such as will not allow the labour to be conducted with decency or with safety to the mother. In each case a strict investigation is made into the financial circumstances before authority is granted to enter the Hospital or Home.

In addition to those previously mentioned, arrangements have been made for the admission of ante-natal cases to Institutions at Blackburn, Burnley and Liverpool.

There is the problem of the unmarried mother and of the illegitimate child. The Maternity and Child Welfare Sub-Committee have made arrangements with a Home for unmarried mothers whereby these women can be received into the Homes several months before their confinement and may remain there for several months afterwards so that they may not be separated from their babies. No case under these arrangements has, however, arisen. In cases where the mother is separated from her baby, an arrangement has been made with the Fulwood Home for Homeless Infants whereby such babies are received and looked after until they can be adopted.

Arrangements have been made with the Corporation of Burnley for the admission of non-thriving babies up to two years of age to the Baby Ward of the Bank Hall Maternity Hospital. This is not a hospital for definite diseases, but for marasmus and ricketty children, and children whose primary need is dieting.

Local Child Welfare Schemes.—The following is a list of the Child Welfare Centres which have been established by Town and Urban District Councils:—

LIST OF LOCAL CHILD WELFARE CENTRES WHICH HAVE BEEN ESTABLISHED BY
LOCAL SANITARY AUTHORITIES.

District.	Address of Child Welfare Centre.	Day and Time Open.	Health Visitor Appointed.
Acerington (B) ...	Ambulance Drill Hall, Bull Bridge...	Daily, 9—11, Thursday, 3—5	One Senior Health Visitor; three Health Visitors who also act as School Nurses
	Municipal Maternity Home, Rough Lee	Ante-natal Clinic Friday, 10—12	
Ashton-in-Makerfield ...	Congregational Sunday School, Gerard Street	Thursday, 2—4 ...	Whole time
Ashton-under-Lyne (B)	Enville House, Scotland Street ...	Tuesday & Wednesday, 2—4.	Whole time (3); part time (1)
	Richmond House, Richmond Street	Monday, 9—12 Thursday, 2—4	
*Atherton ...	Ormonde Street School, Hurst ...	Wednesday, 2—4	Whole time
	Formby Hall ...	Wednesday, 2.15—3.30	
Bacup (B) ...	Rochdale Road ...	Wednesday, 2—4 ...	Two Health Visitors who act also as School Nurses.
Brierfield ...	Town Hall ...	Wednesday, 3—4.30 Thursday, 2.30—5 Friday, 2—7.30 Ante-natal Meetings, alternate Thursdays, 7—8	Whole time
Chadderton ...	Washbrook Primitive Methodist School	Monday, 2—5 ...	Whole time (2)
	Town Hall, Middleton Road ...	Tuesday and Thursday, 2—5	
Chorley (B) ...	Eaves Lane Congregational School	Wednesday, 2.30—4	Whole time (2)
	St. George's Street School ...	Thursday, 2.30—4	
	Public Health Department ...	Ante-natal Clinic, first Wednesday in each month, 10	Health Visitor also acts as School Nurse
Clitheroe (B) ...	The Castle ...	Fortnightly—Tuesday, 3	
Colne (B) ...	Bank House, Albert Road ...	Wednesday and Thursday, 10—11 and 2.30—4	Whole time
Darwen (B) ...	43, Bolton Road ...	Daily, 9—10, 4.30—5.30 Tuesday and Wednesday, 2.30—5	Whole time (2)
	Greenfield Institute ...	Thursday, 2.30—5	
Denton ...	Market Place ...	Monday, 2—5 ...	Whole time
Eccles (B) ...	Green Lane, Patricroft ...	Monday, Tuesday, Wednesday and Thursday, 2—4.30 Ante-natal Meetings, Friday, 3—4	One Senior Health Visitor; four Health Visitors who also act as School Nurses
Failsworth ...	Carnegie Library, Oldham Road ...	Wednesday, 2—4.45 ...	
Farnworth ...	Wesley School, Market Street ...	Monday, Wednesday and Friday, 2.30—4.30	Whole time (2)
Golborne ...	Methodist School, High Street ...	Alternate Thursdays, 2.30—4	
Great Harwood ...	Town Hall ...	Alternate Tuesdays, 2.30—4.30	Part time
Haslingden (B) ...	Old Wesleyan School, Manchester Road	Alternate Thursdays, 2.30—4—30	Health Visitor also acts as School Nurse

* Transferred to the County Council on 1st April, 1929.

LIST OF LOCAL CHILD WELFARE CENTRES.—*continued.*

District.	Address of Child Welfare Centre.	Day and Time Open.	Health Visitor Appointed.
Heywood (B)	Hornby Street Sunday School ...	Thursday, 2—5 ...	Three Health Visitors, who also act as School Nurses
Hindley	White House, Liverpool Road ...	Daily, 2—5 Ante-natal Clinic, Wednesday, 3—4	Whole time
Horwich	Public Hall	Daily, 9—10 ; Wednesday and Thursday, 3—5 Ante-natal Clinic, held fortnightly	Whole time (2)
Ince-in-Makerfield ...	Council Offices	Tuesday and Thursday, 2—4	Whole time (2)
Lancaster (B)	Thurnham House, Thurnham Street	Tuesday and Thursday, 2—5 Ante-natal Clinic, Friday, 2—5	Four Health Visitors who also act as School Nurses
Leigh (B)	St. Joseph's Club, Aldrens Lane, Skerton Stone House, St. Helens Road ...	Monday, 2—4 Ante-natal Clinic, Monday, 2—4	Six Health Visitors, who also act as School Nurses
Lytham Saint Anne's (B)	Nangreaves Street Coal Pit Lane Public Baths, Lytham Public Offices, South Drive, St. Anne's	Wednesday, 2—5 ... Wednesday, 2—5 Thursday, 2.30—5 ... Tuesday, 2.30—5	Two Health Visitors, who also act as School Nurses
Middleton (B)	Health Department, Durnford Street Reading Room, Middleton Junction	Thursday, 2—5 ; alternate Wednesdays 2—5 Alternate Wednesdays, 2—5	Three Health Visitors, who also act as School Nurses
Mossley (B)	Wesleyan Schools, Stamford Road...	Wednesday, 3 ...	Whole time
Nelson (B)	9, Carr Road	Wednesday, 2 ...	Whole time (2)
Newton-in-Makerfield ...	Town Hall, Earlestown Town Hall, Newton-le-Willows ...	Thursday, 2.30—4.30 Monday, 3—4	Whole time
*Orrell	Council Offices	Thursday, 3	District Nurse acts as Health Visitor
†Oswaldtwistle	Barnfield House Conservative Club, Belthorn ...	Tuesday, 2.30 Once per quarter	Whole time
Prestwich... ..	Wesleyan Schools, Chapel Street ...	Wednesday, 2—5 ...	Whole time
Radeliffe	Close Park	Tuesday and Thursday, 1.30—4 Ante-natal Clinic, Tuesday, 10—12	Whole time (1) ; part time (1)
Ramsbottom	Technical School, Stubbins Lane ... Hill Street, Summerseat	Tuesday, 2 Alternate Wednesdays, 2.30	Whole time
Rawtenstall (B)	Council School, Cloughfold Council School, Goodshaw Council School, Whitewell Bottom	1st and 3rd Tuesday 2.30—4 2nd and 4th Tuesday, 2.30—4 2nd and 4th Tuesday, 2.30—4	Two Health Visitors, who also act as School Nurses
Royton	Free Library, Rochdale Road ...	Wednesday, 2—5 ...	Whole time
Stretford	40, Talbot Road, Old Trafford ... Sixth Street, Trafford Park Town Hall Stretford Memorial Hospital ...	Monday and Thursday 2—4.30 Tuesday, 2—4.30 Wednesday, 2.30—4 Ante-natal Clinic, monthly	Whole time (1) ; part time (2)
Swinton and Pendlebury	Council Offices, Swinton	Wednesday and Thursday 2—5 Ante-natal Clinic, alternate Tuesdays, 2—5	Whole time (2)
Tyldesley-with-Shakerley	Technical School	Thursday, 2.30—4.30...	Whole time
Upholland	Nil ... ..	... ..	District Nurse acts as Health Visitor
Waterloo-with-Seaforth...	Town Hall, Waterloo	Wednesday, 10.30—12.30 and 2.30—4.30 Ante-natal Clinic, Wednesday, 10.30—12.30	Whole time
Westhoughton	Wesleyan Hall, Seaforth Sunnybank, Market Street	Monday, 2.30—4.30 Tuesday and Thursday, 2.30—4.30	Whole time (2)
Widnes (B)	Town Hall Cooper Hall Mill Brow Halebank Mill Brow	Consultations. } Mon., 1.30 } Tues., 1.30 } Thurs., 1.30 } Wed., 2 } 1.30—5 Ante-natal Clinic, 2nd and 4th Wednesday	Seven Health Visitors, who also act as School Nurses

*Transferred to the County Council on 1st April, 1929. †Transferred to the County Council on 1st April, 1928.

ANTE-NATAL WORK BY LOCAL AUTHORITIES.—In 33 of the 42 districts where the Local Health Authorities are responsible for child welfare, ante-natal work is carried out in a greater or lesser degree. Medical Officers of the following districts state that ante-natal clinics are held weekly or at other intervals :—Accrington (B), Brierfield, Chorley (B), Eccles (B), Hindley, Horwich, Lancaster (B), Leigh (B), Radcliffe, Stretford, Swinton and Pendlebury, Waterloo-with-Seaforth, and Widnes (B).

In other areas, it is stated that expectant mothers are encouraged to attend the Child Welfare Centres, or that they are visited in their own homes by the health visitors.

SUPPLY OF MILK AND FOODSTUFFS.—In practically all the districts doing child welfare work, arrangements have been made by which a supply of food and milk for expectant and nursing mothers, and of milk for young children is available in necessitous cases.

MATERNITY HOMES.—Maternity Homes have been established by or with the aid of Local Authorities in the following districts:—Accrington (B), 8 beds; Colne (B), 8 beds; Leigh (B), 5 beds; Nelson (B), 10 beds; and Radcliffe, 10 beds. At Lytham Saint Anne's (B) 6 beds are available at the War Memorial hospital; at Stretford 6 beds are reserved at the Memorial hospital; and at Widnes (B) a maternity home, 8 beds, has been built adjacent to the nurses' home. In 16 other districts, it is stated, accommodation for maternity cases is available, if required, at local hospitals, infirmaries and other institutions in neighbouring large towns, or in maternity homes in adjoining districts. In other areas the union hospital is the only provision available.

Orthopædic Treatment.—COUNTY SCHEME.—CRIPPLING DEFECTS AND ORTHOPÆDICS.—The arrangements for dealing with crippled children were fully described in last year's Report. Since then the scheme has been further increased by the inclusion of the following Authorities : County Borough of Bury, Borough of Accrington and the Urban Districts of Hindley and Golborne. Up to the present 22 After-Care Centres have been established at Ashton-in-Makerfield, Ashton-under-Lyne, Burnley, Chadderton, Fleetwood, Haydock, Horwich, Irlam, Kearsley, Lancaster, Leyland, Litherland, Nelson, Ormskirk, Prescott, Preston, Rishton, Rochdale, Tyldesley, Ulverston, Whitefield, and Wigan. For the purposes of After-Care, three thoroughly trained and experienced After-Care Nurses have been appointed, who are highly expert in plaster and appliance work.

The following table shows the number of children treated during 1928 :—

	Ancoats Hospital.	Biddulph Hospital.	Ethel Hedley Hospital.	Rochdale Cripple Children's Home.	Liverpool Myrtle Street Hospital.	Heswall Country Hospital.
Inmates, 1st January, 1928	...	...	20	15	2	16
Admitted during the year	4	179	45	26	32	37
Discharged during the year	4	95	51	26	30	37
Remaining on 31st Dec., 1928	...	84	14	15	4	16

AFTER-CARE CENTRES.

The following table is a summary of the work done during the year in the After-Care Centres :—

[illegible]

The following table shows the defects from which the children seen in the After-Care Centres were suffering :—

Paralysis—

(a) Infantile—Upper limb	...	...	38
Lower limb	...	...	274
Upper and lower limbs	...	...	15
(b) Spastic—Monoplegia	...	...	12
Diplegia	...	...	22
Paraplegia	...	...	51
Hemiplegia	...	...	106
(c) Birth Palsy	...	...	74

Deformities, Congenital—

Hydrocephalus	...	...	3
Cleft Palate	...	...	4
Scoliosis	...	...	11
Sprengel's Shoulder	...	...	3
Rudimentary and Malformed Limbs	...	...	8
Talipes Equino Varus	...	...	90
Talipes Equino Valgus	...	...	7
Pes Calcaneus	...	...	5
Torticollis	...	...	64
Torticollis, Spasmodic	...	...	2
Spina Bifida	...	...	8
Spina Bifida with Club Foot	...	...	4
Achondroplasia	...	...	1
Metatarsus Varus	...	...	7
Absence of Bones	...	...	6
Club Hand	...	...	2
Dislocation of Hip	...	...	42
Subluxation of Hip	...	...	1
Contractions	...	...	7
Syndactylism	...	...	8
Wedge Vertebra	...	...	1
Adduction Fifth Toe	...	...	3
Supernumerary Digits	...	...	4
Other Deformities	...	...	13

Deformities, Traumatic—

Fractures of Upper and Lower Limbs	...	...	68
Subluxations	...	...	2
Dislocations	...	...	3
Displaced Epiphysis	...	...	2
Contusions	...	...	10
Tendons	...	...	5
Amputations	...	...	2
Sprain	...	...	2
Intra Uterine Amputation of Hand	...	...	1
Intra Uterine Amputation of Hand and Foot	...	...	1
Coxa Vara	...	...	1
Nerve Injuries	...	...	2
Other Deformities	...	...	4

Deformities, Other—

Pronated Feet	...	...	38
Pes Cavus	...	...	22
Pes Varus	...	...	5
Pes Planus	...	...	133
Genu Recurvatum	...	...	1
Claw Feet	...	...	10
Hallux Valgus	...	...	9
Scoliosis	...	...	87
Kyphosis	...	...	106
Lordosis	...	...	3
Synostosis Radius and Ulna	...	...	1
Pseudo Coxalgia	...	...	10
Hammer Toes	...	...	18
Birth Fracture	...	...	4
Miscellaneous	...	...	6

Rickets—

Genu Varum	...	...	163
Genu Valgum	...	...	206
Genu Valgum and Coxa Vara	...	...	7
Genu Varum and Coxa Vara	...	...	18
Generalised	...	...	50
Acute	...	...	46
Renal	...	...	1
Delayed (Dwarf)	...	...	5

Inflammations—

Arthritis	...	...	10
Arthritis, Suppurative	...	...	8
Arthritis, Infective	...	...	8
Periostitis and Osteitis	...	...	6
Perthe's Disease	...	...	5
Synovitis	...	...	11
Bursitis	...	...	6
Epiphysitis	...	...	3
Pyæmia	...	...	1
Schlatter's Disease	...	...	3
Osteomyelitis	...	...	21
Dactylitis	...	...	2
Other	...	...	5

Tuberculosis—

Active—Knee	...	...	5
Hip	...	...	10
Elbow	...	...	1
Os Calcis	...	...	1
Spine	...	...	6
Dactylitis	...	...	1
Ankle	...	...	1
Old—Knee	...	...	10
Spine	...	...	18
Hip	...	...	15
Elbow	...	...	4
Ankle	...	...	2
Multiple	...	...	1

Tumours—

Lymphatic Hygroma	...	...	1
Exostosis—Multiple	...	...	1
Lower Limb	...	...	1
Naevus	...	...	2
Sarcoma	...	...	1
Ganglion	...	...	6
Chondroma	...	...	2
Fibroma	...	...	2
Lipoma	...	...	2
Cyst	...	...	7
Unclassified	...	...	32

Nervous Diseases—

Mental Deficiency	...	...	7
Encephalitis Lethargica	...	...	8
Polio Encephalitis	...	...	2
Other Medical Neuroses	...	...	14

Miscellaneous—

Kohler's Disease	...	...	3
General Muscular Hypotonia	...	...	2
Hemihypertrophy	...	...	5
Empyema	...	...	1
Malnutrition	...	...	1
Unclassified	...	...	96

Total ... 2308

LOCAL ORTHOPÆDIC SCHEMES.—In the reports of districts not covered by the County Council orthopædic scheme, references are made to local arrangements for orthopædic treatment:—Chorley (B); Haslingden (B), Greenfield orthopædic centre; Heywood (B), through local voluntary Committee; Swinton and Pendlebury, clinic held four times weekly; and Widnes (B), centre established at Mill Brow, with subsidiary clinic at the Town Hall. For the following districts arrangements have been made with the County Council for participation in the County scheme:—Accrington (B), Ashton-under-Lyne (B), Chadderton, Colne (B), Denton, Farnworth, Golborne (1929), Hindley, Horwich, Lancaster (B), Leigh (B), Lytham Saint Anne's (B), Morecambe and Heysham (B), Nelson (B), Radcliffe, Royton, Stretford and Westhoughton. The following districts have the question of orthopædic treatment under consideration:—Atherton and Middleton (B). A number of districts state they have facilities for treatment at institutions outside their area.

Artificial Light Clinics.—In about 18 districts it is stated, an artificial light clinic has been established or is available. These are in addition to the facilities available under the County Council's tuberculosis scheme.

SHOPS ACTS.

The Shops Acts, 1912–1928.—The Shops (Hours of Closing) Act, 1928, was passed on the 3rd August, 1928. The Act incorporated a number of the recommendations of the recent Departmental Committee on the Shops (Early Closing) Acts, and repealed certain sections of the Shops Act, 1912, and the whole of the Shops (Early Closing) Acts, 1920 and 1921.

During 1928 the following Orders under the Shops Acts were made:—

By the County Council—

Worsley ...	...	Weekly half-holiday Order for fried fish and chipped potato shops —Wednesday, 1 p.m.
Little Lever	...	General closing Order for butchers, beef and pork.
Do.	...	Weekly half-holiday.—Wednesday, 1 p.m.
Urmston ...	...	Order suspending provision of general closing Order on New Year's Eve.

By District Councils under powers delegated to them by the County Council—

Standish-with-Langtree		Order substituting for the general closing hours later hours for the sale of tobacco and smokers' requisites.
Crompton	...	do.
Royton	...	do.
Prestwich	...	Order suspending provisions of general closing Order on New Year's Eve.
Irlam	...	do.

A number of other applications under the new Act were received towards the end of the year but the Orders were not made until 1929.

OFFENCES.—Legal proceedings were instituted by the County Council in 1928, in 27 instances. Convictions were obtained in 26; one case was dismissed. Three other offences were met by cautions. Several complaints were dealt with.

BLIND PERSONS ACT.

Blind Persons Act, 1920.—This Act empowers County Councils and County Borough Councils to make arrangements for promoting the welfare of blind persons resident in their area, and such Councils may for this purpose provide and maintain or contribute towards the provision and maintenance of Societies and Workshops for the Blind.

The Lancashire County Council has imposed the administration of the Act upon the Public Health and Housing Committee, and the latter has entrusted the duty of preparing and carrying out the Scheme to its Maternity and Child Welfare Sub-Committee.

The expenses incurred by the County Council under the Blind Persons Act are defrayed out of the County Fund as expenses for general purposes.

As a result of a census which has been taken, it has been found that there are 1,911 blind persons in the Administrative County area.

A report, both for administrative and medical purposes, has been made on each blind person by either the Assistant County Medical Officers or the Local Medical Officers of Health.

The Administrative County area has been divided up into what are termed "workshop areas," and arrangements have been made with voluntary agencies to supervise the blind persons in these various areas. The names of the voluntary agencies are as follows :—

Acerington Workshops for the Blind.
 Ashton, Stalybridge, Dukinfield and District Home Teaching Society for the Blind.
 Barrow and District Society for the Blind.
 Blackburn Workshops for the Blind.
 Blackburn and Darwen Society for the Blind.
 Blackpool and Fylde Society for the Blind.
 Bolton Workshops for the Blind.
 Burnley and District Society for the Blind.
 Burnley Workshops for the Blind.
 Colne Blind Prevention and Aid Society.
 Fulwood (Preston) Workshops for the Blind.
 Liverpool Workshops for the Blind.
 Manchester, Henshaw's Institution for the Blind.
 Manchester and Salford Blind Aid Society.
 Oldham (Men's) Workshops for the Blind.
 Oldham Home Teaching Society, Werneth.
 Rossendale Society for the Blind.
 Rochdale and District Society for Visiting and Instructing the Blind.
 St. Helens Society for the Welfare of the Blind.
 Warrington and District Society for the Blind.
 Wigan Workshops for the Blind.

Grants to the foregoing workshops and societies are paid on the following basis :—

£20 per annum per workshop employee.

£20 per annum per home worker.

£78 per annum per home teacher employed wholly in visiting County cases.

In addition to the above-mentioned grants, an annual contribution is made to each workshop or society for non-specific services ; for example, for the help which they give to the non-employable blind and for their general expenses.

There are 73 workshop employees, 70 home workers, and 30 home teachers in respect of whom the Lancashire County Council pays grant.

In addition to the ordinary voluntary agencies the Lancashire County Council also makes a contribution to the Northern Branch of the National Library for the Blind.

The Blind Persons Act does not interfere with the duties of Education Authorities under Part V of the Education Act, 1921. Both Acts are administered by the same department of the County Council, and, in addition, the same department is responsible for the higher education and training of the blind. This arrangement has been found very advantageous in many ways, as one department has the administrative supervision of every class of the blind who can be dealt with by the County Council.

District Health Reports for 1928.—The Ministry of Health Circular 939 to local Medical Officers of Health, respecting their annual reports has been referred to on page 7. From every County district the Summary Form prepared in the County Public Health Department has been received, but some did not come to hand until July and early August. A number of the local health reports have again been unduly delayed, and at the time of writing (August 15th, 1929) twelve reports have not yet been supplied. The Ministry Circular requested that the local health reports for 1928 be transmitted to the Ministry and to the County Council not later than the middle of May.

I conclude my report for the year 1928 by again expressing to the district Medical Officers of Health and the local Sanitary Staffs my sincere appreciation for much assistance and co-operation, in carrying out the public health work of the County. I also thank them for supplying many returns and statistics outside their statutory obligations.

I have the honour to be, Ladies and Gentlemen,

Yours obediently,

J. J. BUTTERWORTH,

County Medical Officer of Health.

Public Health Department,

County Offices, Preston.

August, 1929.

ADMINISTRATIVE COUNTY OF LANCASTER.

BIRTH AND DEATH RATES

OF THE

BOROUGHES, URBAN AND RURAL DISTRICTS

FOR THE YEAR 1928,

COMPARED WITH THE RATES FOR THE YEAR 1927, AND WITH THE
AVERAGES FOR THE FIVE YEARS 1923-1927.

BOROUGH AND URBAN DISTRICTS.

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Abram.—										
Population, 7,013.										
<i>Mean of 5 years, 1923-1927</i>					...	16.6	11.4	0.70	0.73	3.47 108
Year—										
1927					...	15.6	13.5	0.60	0.60	9.61 86
1928					...	15.9	11.5	0.42	0.71	8.92 26
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					...	−0.7	+0.1	−0.28	−0.02	+5.45 −82
<i>Previous year</i>					...	+0.3	−2.0	−0.18	+0.11	−0.69 −60
Accrington (Borough).—										
Population, 42,940.										
<i>Mean of 5 years, 1923-1927</i>					...	13.4	13.5	0.66	1.57	7.16 66
Year—										
1927					...	13.2	14.6	0.53	1.50	6.99 61
1928					...	12.6	12.9	0.72	1.56	5.51 77
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					...	−0.8	−0.6	+0.06	−0.01	−1.65 +11
<i>Previous year</i>					...	−0.6	−1.7	+0.19	+0.06	−1.48 +16
Adlington.—										
Population, 4,340.										
<i>Mean of 5 years, 1923-1927</i>					...	18.1	11.4	0.44	1.10	14.55 63
Year—										
1927					...	12.4	12.8	0.45	1.12	36.36 72
1928					...	11.9	10.3	0.69	1.38	19.23 115
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					...	−6.2	−1.1	+0.25	+0.28	+4.68 +52
<i>Previous year</i>					...	−0.5	−2.5	+0.24	+0.26	−17.13 +43
Ashton-in-Makerfield.—										
Population, 22,780.										
<i>Mean of 5 years, 1923-1927</i>					...	18.3	10.4	0.60	0.85	5.72 81
Year—										
1927					...	14.3	10.2	0.48	0.89	5.66 76
1928					...	15.5	11.1	0.39	1.05	8.47 107
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					...	−2.8	+0.7	−0.21	+0.20	+2.75 +26
<i>Previous year</i>					...	+1.2	+0.9	−0.09	+0.16	+2.81 +31
Ashton-under-Lyne (Borough).—										
Population, 51,960.										
<i>Mean of 5 years, 1923-1927</i>					...	16.2	13.8	0.83	1.41	5.77 89
Year—										
1927					...	14.3	13.2	0.74	1.61	8.19 90
1928					...	14.3	13.8	1.05	1.30	10.70 69
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					...	−1.9	nil	+0.22	−0.11	+4.93 −20
<i>Previous year</i>					...	nil	+0.6	+0.31	−0.31	+2.51 −21

The district populations are the Registrar-General's estimates for mid-year 1928.

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Aspull.—										
Population, 7,620										
<i>Mean of 5 years, 1923-1927</i>					... 21·1	14·1	0·65	1·15	3·43	105
Year—										
1927					... 19·6	14·9	0·79	1·45	nil	128
1928					... 21·9	13·2	0·65	1·18	nil	107
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					... +0·8	—0·9	nil	+0·03	—3·43	+2
<i>Previous year</i>					... +2·3	—1·7	—0·14	—0·27	nil	—21
Atherton.—										
Population, 20,110.										
<i>Mean of 5 years, 1923-1927</i>					... 16·2	10·9	0·60	1·04	6·04	67
Year—										
1927					... 15·3	10·6	0·73	1·03	6·41	48
1928					... 16·7	10·2	0·69	0·94	8·90	62
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					... +0·5	—0·7	+0·09	—0·10	+2·86	—5
<i>Previous year</i>					... +1·4	—0·4	—0·04	—0·09	+2·49	+14
Audenshaw.—										
Population, 8,524.										
<i>Mean of 5 years, 1923-1927</i>					... 15·8	12·1	0·57	1·49	11·04	86
Year—										
1927					... 14·9	11·2	0·11	1·43	8·00	88
1928					... 13·9	10·6	0·46	1·99	8·40	50
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					... —1·9	—1·5	—0·11	+0·50	—2·64	—36
<i>Previous year</i>					... —1·0	—0·6	+0·35	+0·56	+0·40	—38
Bacup (Borough).—										
Population, 20,550.										
<i>Mean of 5 years, 1923-1927</i>					... 16·5	15·3	0·66	1·12	4·01	84
Year—										
1927					... 15·1	18·4	0·73	2·00	3·21	93
1928					... 15·4	14·1	0·34	0·97	15·77	104
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					... —1·1	—1·2	—0·32	—0·15	+11·76	+20
<i>Previous year</i>					... +0·3	—4·3	—0·39	—1·03	+12·56	+11
Barrowford.—										
Population, 5,479.										
<i>Mean of 5 years, 1923-1927</i>					... 13·3	13·5	0·67	1·10	14·25	86
Year—										
1927					... 12·3	12·0	0·35	0·88	nil	57
1928					... 11·8	13·5	nil	1·46	nil	76
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923-1927</i>					... —1·5	nil	—0·67	+0·36	—14·25	—10
<i>Previous year</i>					... —0·5	+1·5	—0·35	+0·58	nil	+19

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Billinge-and-Winstanley.—											
Population, 5,201.											
<i>Mean of 5 years, 1923–1927</i>						... 15·5	11·4	0·49	0·87	7·58	99
Year—											
1927 ... ..						... 13·1	9·0	0·37	0·75	nil	71
1928 ... ..						... 11·9	9·8	1·34	0·19	16·12	129
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −3·6	−1·6	+0·85	−0·68	+8·54	+30
<i>Previous year</i> ... ..						... −1·2	+0·8	+0·97	−0·56	+16·12	+58
Blackrod.—											
Population, 3,842.											
<i>Mean of 5 years, 1923–1927</i>						... 18·7	12·3	0·25	0·90	3·27	115
Year—											
1927 ... ..						... 15·5	13·5	nil	1·02	16·39	81
1928 ... ..						... 19·0	11·1	0·26	1·30	nil	41
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +0·3	−1·2	+0·01	+0·40	−3·27	−74
<i>Previous year</i> ... ..						... +3·5	−2·4	+0·26	+0·28	−16·39	−40
Brierfield.—											
Population, 8,063.											
<i>Mean of 5 years, 1923–1927</i>						... 11·4	11·8	0·47	1·07	16·56	95
Year—											
1927 ... ..						... 8·8	14·4	0·84	1·69	27·39	41
1928 ... ..						... 12·1	10·9	0·37	1·98	10·20	30
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +0·7	−0·9	−0·10	+0·91	−6·36	−65
<i>Previous year</i> ... ..						... +3·3	−3·5	−0·47	+0·29	−17·19	−11
Carnforth.—											
Population, 3,117.											
<i>Mean of 5 years, 1923–1927</i>						... 18·6	11·3	0·67	0·73	3·63	77
Year—											
1927 ... ..						... 15·2	10·2	0·93	0·62	nil	40
1928 ... ..						... 17·0	14·7	1·28	2·56	nil	56
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −1·6	+3·4	+0·61	+1·83	−3·63	−21
<i>Previous year</i> ... ..						... +1·8	+4·5	+0·35	+1·94	nil	+16
Chadderton.—											
Population, 28,100.											
<i>Mean of 5 years, 1923–1927</i>						... 15·3	13·0	0·69	1·21	6·86	105
Year—											
1927 ... ..						... 15·7	13·9	0·84	1·20	6·96	92
1928 ... ..						... 12·9	12·7	0·74	1·60	8·24	74
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −2·4	−0·3	+0·05	+0·39	+1·38	−31
<i>Previous year</i> ... ..						... −2·8	−1·2	−0·10	+0·40	+1·28	−18

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Chorley (Borough).—										
Population, 31,580.										
<i>Mean of 5 years, 1923–1927</i>					... 17·1	12·2	0·57	1·14	4·03	91
Year—										
1927					... 16·4	12·7	0·48	1·34	1·94	81
1928					... 16·0	12·5	0·60	1·26	7·88	80
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −1·1	+0·3	+0·03	+0·12	+3·85	−11
<i>Previous year</i>					... −0·4	−0·2	+0·12	−0·08	+5·94	−1
Church.—										
Population, 6,575.										
<i>Mean of 5 years, 1923–1927</i>					... 15·0	13·3	0·61	1·58	12·37	95
Year—										
1927					... 12·6	13·5	0·90	1·35	23·80	83
1928					... 14·1	13·3	0·45	1·52	nil	53
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −0·9	nil	−0·16	−0·06	−12·37	−42
<i>Previous year</i>					... +1·5	−0·2	−0·45	+0·17	−23·80	−30
Clayton-le-Moors.—										
Population, 8,500										
<i>Mean of 5 years, 1923–1927</i>					... 14·3	12·2	0·62	1·04	11·36	71
Year—										
1927					... 11·9	15·4	0·35	1·54	10·00	80
1928					... 15·2	10·1	0·35	1·17	15·38	76
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +0·9	−2·1	−0·27	+0·13	+4·02	+5
<i>Previous year</i>					... +3·3	−5·3	nil	−0·37	+5·38	−4
Clitheroe (Borough).—										
Population, 12,100.										
<i>Mean of 5 years, 1923–1927</i>					... 13·2	13·2	0·68	1·46	3·62	66
Year—										
1927					... 12·8	15·7	0·83	1·67	nil	38
1928					... 12·5	12·6	0·33	1·90	6·57	52
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −0·7	−0·6	−0·35	+0·44	+2·95	−14
<i>Previous year</i>					... −0·3	−3·1	−0·50	+0·23	+6·57	+14
Colne (Borough).—										
Population, 24,740.										
<i>Mean of 5 years, 1923–1927</i>					... 13·3	12·5	0·75	1·31	7·22	99
Year—										
1927					... 11·9	14·9	0·72	1·28	10·06	114
1928					... 12·8	12·1	0·44	1·45	6·26	65
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −0·5	−0·4	−0·31	+0·14	−0·96	−34
<i>Previous year</i>					... +0·9	−2·8	−0·28	+0·17	−3·80	−49

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Crompton.—											
Population, 15,000.											
<i>Mean of 5 years, 1923–1927</i>						... 15·0	13·5	0·74	1·49	6·11	89
Year—											
1927						... 14·9	13·8	0·33	1·54	8·96	58
1928						... 13·0	11·4	0·73	1·46	10·25	66
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -2·0	-2·1	-0·01	-0·03	+4·14	-23
<i>Previous year</i>						... -1·9	-2·4	+0·40	-0·08	+1·29	+8
Croston.—											
Population, 2,011.											
<i>Mean of 5 years, 1923–1927</i>						... 15·9	15·1	0·20	0·80	nil	106
Year—											
1927						... 15·4	17·4	0·51	0·51	nil	100
1928						... 14·9	13·4	nil	1·49	66·66	100
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -1·0	-1·7	-0·20	+0·69	+66·66	-6
<i>Previous year</i>						... -0·5	-4·0	-0·51	+0·98	+66·66	nil
Dalton-in-Furness.—											
Population, 10,500.											
<i>Mean of 5 years, 1923–1927</i>						... 17·6	13·9	1·13	1·42	2·90	73
Year—											
1927						... 15·4	16·2	1·54	1·72	5·88	58
1928						... 17·4	13·4	1·04	1·33	5·46	81
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -0·2	-0·5	-0·09	-0·09	+2·56	+8
<i>Previous year</i>						... +2·0	-2·8	-0·50	-0·39	-0·42	+23
Darwen (Borough).—											
Population, 38,150.											
<i>Mean of 5 years, 1923–1927</i>						... 14·2	13·7	0·46	1·66	8·47	81
Year—											
1927						... 11·9	15·0	0·33	1·76	4·32	69
1928						... 12·0	12·8	0·49	1·83	13·04	67
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -2·2	-0·9	+0·03	+0·17	+4·57	-14
<i>Previous year</i>						... +0·1	-2·2	+0·16	+0·07	+8·72	-2
Denton.—											
Population, 17,600.											
<i>Mean of 5 years, 1923–1927</i>						... 14·8	12·2	0·67	1·26	5·43	95
Year—											
1927						... 12·4	11·4	0·64	1·29	4·71	89
1928						... 12·8	11·8	0·56	1·42	8·84	53
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -2·0	-0·4	-0·11	+0·16	+3·41	-42
<i>Previous year</i>						... +0·4	+0·4	-0·08	+0·13	+4·13	-86

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Droylsden.—										
Population, 13,690.										
<i>Mean of 5 years, 1923–1927</i>					... 18·5	13·1	0·77	1·09	6·23	85
Year—										
1927					... 15·6	12·6	0·36	1·23	9·25	83
1928					... 15·0	10·7	0·51	1·60	nil	53
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -3·5	-2·4	-0·26	+0·51	-6·23	-32
<i>Previous year</i>					... -0·6	-1·9	+0·15	+0·37	-9·25	-30
Eccles (Borough).—										
Population, 45,200.										
<i>Mean of 5 years, 1923–1927</i>					... 16·7	11·5	0·83	1·35	3·87	70
Year—										
1927					... 15·6	12·7	0·92	1·65	2·82	60
1928					... 16·4	11·0	0·48	1·41	5·38	65
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -0·3	-0·5	-0·35	+0·06	+1·51	-5
<i>Previous year</i>					... +0·8	-1·7	-0·44	-0·24	+2·56	+5
Failsworth.—										
Population, 16,840.										
<i>Mean of 5 years, 1923–1927</i>					... 15·8	11·3	0·88	1·25	5·90	76
Year—										
1927					... 13·8	11·1	0·72	1·32	4·34	78
1928					... 14·5	12·3	0·47	1·54	8·16	65
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·3	+1·0	-0·41	+0·29	+2·26	-11
<i>Previous year</i>					... +0·7	+1·2	-0·25	+0·22	+3·82	-13
Farnworth.—										
Population, 29,500.										
<i>Mean of 5 years, 1923–1927</i>					... 16·8	11·8	0·73	1·15	3·97	85
Year—										
1927					... 16·4	12·5	0·74	1·25	nil	78
1928					... 14·3	11·4	0·54	1·22	7·09	75
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -2·5	-0·4	-0·19	+0·07	+3·12	-10
<i>Previous year</i>					... -2·1	-1·1	-0·20	-0·03	+7·09	-3
Fleetwood.—										
Population, 22,470.										
<i>Mean of 5 years, 1923–1927</i>					... 21·5	11·2	0·79	1·05	2·53	84
Year—										
1927					... 19·6	11·3	0·86	0·77	nil	110
1928					... 20·6	11·2	0·62	1·29	8·60	68
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -0·9	nil	-0·17	+0·24	+6·07	-16
<i>Previous year</i>					... +1·0	-0·1	-0·24	+0·52	+8·60	-42

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Formby.—										
Population, 7,492.										
<i>Mean of 5 years, 1923–1927</i>					... 13·8	9·5	0·64	1·03	4·22	30
Year—										
1927					... 16·5	8·6	0·40	0·94	8·13	40
1928					... 12·6	10·4	0·53	1·20	nil	63
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·2	+0·9	-0·11	+0·17	-4·22	+33
<i>Previous year</i>					... -3·9	+1·8	+0·13	+0·26	-8·13	+23
Fulwood.—										
Population—										
For Birth-rate, 7,261.										
For Death-rate, 6,781.										
<i>Mean of 5 years, 1923–1927</i>					... 9·3	13·8	0·54	1·70	9·59	71
Year—										
1927					... 8·5	12·0	0·30	1·36	nil	100
1928					... 8·5	12·0	0·44	1·76	nil	32
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -0·8	-1·8	-0·10	+0·06	-9·59	-39
<i>Previous year</i>					... nil	nil	+0·14	+0·40	nil	-68
Golborne.—										
Population, 7,477.										
<i>Mean of 5 years, 1923–1927</i>					... 20·6	10·5	0·71	0·52	5·17	67
Year—										
1927					... 17·7	8·7	0·13	0·39	7·51	52
1928					... 13·5	12·0	0·40	0·93	9·90	69
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -7·1	+1·5	-0·31	+0·41	+4·73	+2
<i>Previous year</i>					... -4·2	+3·3	+0·27	+0·54	+2·39	+17
Grange-over-Sands.—										
Population, 2,329.										
<i>Mean of 5 years, 1923–1927</i>					... 8·7	13·9	0·75	1·98	nil	10
Year—										
1927					... 8·4	14·2	0·89	2·67	nil	nil
1928					... 6·8	17·1	0·42	2·14	nil	62
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·9	+3·2	-0·33	+0·16	nil	+52
<i>Previous year</i>					... -1·6	+2·9	-0·47	-0·53	nil	+62
Great Crosby.—										
Population, 16,460.										
<i>Mean of 5 years, 1923–1927</i>					... 14·0	10·8	0·75	1·45	4·98	59
Year—										
1927					... 13·0	9·9	0·45	0·90	4·97	39
1928					... 12·8	10·2	0·42	1·33	nil	47
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·2	-0·6	-0·33	-0·12	-4·98	-12
<i>Previous year</i>					... -0·2	+0·3	-0·03	+0·43	-4·97	+8

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Great Harwood.—											
Population, 14,000.											
<i>Mean of 5 years, 1923–1927</i>						... 14·3	12·2	0·53	1·21	7·80	84
Year—											
1927						... 11·1	11·9	0·51	1·24	6·53	91
1928						... 14·3	11·7	0·21	1·57	4·97	64
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... nil	—0·5	—0·32	+0·36	—2·83	—20
<i>Previous year</i>						... +3·2	—0·2	—0·30	+0·33	—1·56	—27
Haslingden (Borough).—											
Population, 17,100.											
<i>Mean of 5 years, 1923–1927</i>						... 12·5	14·1	0·55	1·44	0·95	75
Year—											
1927						... 12·2	15·1	0·29	1·22	4·78	76
1928						... 11·4	12·0	0·29	0·81	5·12	82
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... —1·1	—2·1	—0·26	—0·63	+4·17	+7
<i>Previous year</i>						... —0·8	—3·1	nil	—0·41	+0·34	+6
Haydock.—											
Population, 10,840.											
<i>Mean of 5 years, 1923–1927</i>						... 23·4	11·2	0·44	0·56	3·57	99
Year—											
1927						... 19·2	12·1	0·17	0·70	nil	113
1928						... 20·5	9·6	0·36	0·83	4·48	67
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... —2·9	—1·6	—0·08	+0·27	+0·91	—32
<i>Previous year</i>						... +1·3	—2·5	+0·19	+0·13	+4·48	—46
Heywood (Borough).—											
Population, 26,080.											
<i>Mean of 5 years, 1923–1927</i>						... 16·0	15·3	0·77	1·54	7·61	80
Year—											
1927						... 15·6	14·7	0·54	1·48	2·50	62
1928						... 15·2	14·1	0·57	2·07	5·03	83
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... —0·8	—1·2	—0·20	+0·53	—2·58	+3
<i>Previous year</i>						... —0·4	—0·6	+0·03	+0·59	+2·53	+21
Hindley.—											
Population, 24,160.											
<i>Mean of 5 years, 1923–1927</i>						... 17·7	12·5	0·69	0·85	7·52	104
Year—											
1927						... 15·5	11·1	0·52	1·08	7·75	64
1928						... 14·7	11·2	0·78	1·32	5·61	89
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... —3·0	—1·3	+0·09	+0·47	—1·91	—15
<i>Previous year</i>						... —0·8	+0·1	+0·26	+0·24	—2·14	+25

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Horwich.—										
Population, 16,850.										
<i>Mean of 5 years, 1923–1927</i>					... 15·7	11·2	0·73	1·33	3·13	62
Year—										
1927					... 14·3	13·5	1·15	1·15	4·23	63
1928					... 14·2	11·3	0·59	1·72	nil	83
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −1·5	+0·1	−0·14	+0·39	−3·13	+21
<i>Previous year</i>					... −0·1	−2·2	−0·56	+0·57	−4·23	+20
Huyton-with-Roby.—										
Population, 5,117.										
<i>Mean of 5 years, 1923–1927</i>					... 13·4	9·4	0·60	1·20	3·92	73
Year—										
1927					... 9·7	12·5	0·38	1·71	19·60	176
1928					... 12·5	9·1	0·39	1·56	nil	46
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −0·9	−0·3	−0·21	+0·36	−3·92	−27
<i>Previous year</i>					... +2·8	−3·4	+0·01	−0·15	−19·60	−130
Ince-in-Makerfield.—										
Population, 24,020.										
<i>Mean of 5 years, 1923–1927</i>					... 21·8	13·3	0·74	0·81	4·08	125
Year—										
1927					... 19·4	12·9	0·99	0·91	4·29	105
1928					... 20·6	11·8	0·49	0·70	2·02	88
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −1·2	−1·5	−0·25	−0·11	−2·06	−37
<i>Previous year</i>					... +1·2	−1·1	−0·50	−0·21	−2·27	−17
Irlam.—										
Population, 12,220.										
<i>Mean of 5 years, 1923–1927</i>					... 21·3	8·8	0·60	0·92	5·08	64
Year—										
1927					... 18·2	9·9	0·84	1·01	4·65	97
1928					... 19·0	8·0	0·73	0·81	12·87	38
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −2·3	−0·8	+0·13	−0·11	+7·79	−26
<i>Previous year</i>					... +0·8	−1·9	−0·11	−0·20	+8·22	−59
Kearsley.—										
Population, 10,380.										
<i>Mean of 5 years, 1923–1927</i>					... 16·7	11·7	0·76	0·97	1·22	82
Year—										
1927					... 12·9	10·9	0·76	1·14	nil	66
1928					... 13·4	12·7	1·44	1·15	7·14	21
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −3·3	+1·0	+0·68	+0·18	+5·92	−61
<i>Previous year</i>					... +0·5	+1·8	+0·68	+0·01	+7·14	−45

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Kirkham.—										
Population, 4,126.										
<i>Mean of 5 years, 1923–1927</i>					... 19·6	15·1	0·72	0·67	2·70	96
Year—										
1927					... 18·8	14·5	1·00	0·50	nil	93
1928					... 15·0	11·8	1·21	1·45	16·12	64
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -4·6	-3·3	+0·49	+0·78	+13·42	-32
<i>Previous year</i>					... -3·8	-2·7	+0·21	+0·95	+16·12	-29
Lancaster (Borough).—										
Population—										
For Birth-rate, 41,500.										
For Death-rate, 41,250.										
<i>Mean of 5 years, 1923–1927</i>					... 16·3	13·1	0·92	1·54	2·69	75
Year—										
1927					... 15·7	13·6	0·87	1·63	1·54	77
1928					... 16·3	11·8	0·72	1·98	2·95	70
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... nil	-1·3	-0·20	+0·44	+0·26	-5
<i>Previous year</i>					... +0·6	-1·8	-0·15	+0·35	+1·41	-7
Lathom and Burscough.—										
Population—										
For Birth-rate, 8,033.										
For Death-rate, 7,963.										
<i>Mean of 5 years, 1923–1927</i>					... 16·5	11·3	0·56	1·16	3·32	76
Year—										
1927					... 13·6	12·6	0·37	1·85	9·00	45
1928					... 13·5	12·1	0·25	2·13	18·34	18
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -3·0	+0·8	-0·31	+0·97	+15·02	-58
<i>Previous year</i>					... -0·1	-0·5	-0·12	+0·28	+9·34	-27
Lees.—										
Population, 4,945.										
<i>Mean of 5 years, 1923–1927</i>					... 15·0	13·7	0·74	1·48	8·57	71
Year—										
1927					... 11·9	14·2	0·63	1·26	17·54	35
1928					... 16·5	15·9	0·20	1·61	12·19	85
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +1·5	+2·2	-0·54	+0·13	+3·62	+14
<i>Previous year</i>					... +4·6	+1·7	-0·43	+0·35	-5·35	+50
Leigh (Borough).—										
Population, 46,710.										
<i>Mean of 5 years, 1923–1927</i>					... 17·2	12·7	0·80	1·08	5·83	84
Year—										
1927					... 15·3	12·7	0·75	1·12	9·88	72
1928					... 16·0	12·7	0·74	1·54	6·65	93
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·2	nil	-0·06	+0·46	+0·82	+9
<i>Previous year</i>					... +0·7	nil	-0·01	+0·42	-3·23	+21

PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year

Leyland.—

Population, 10,260.

<i>Mean of 5 years, 1923–1927</i>	...	15.5	12.1	0.60	1.49	nil	75
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Year—

1927	13.3	14.3	0.60	1.32	nil	114
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1928	14.9	11.8	0.48	0.87	6.53	98
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Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	−0.6	−0.3	−0.12	−0.62	+6.53	+23
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<i>Previous year</i>	...	+1.6	−2.5	−0.12	−0.45	+6.53	−16
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Litherland.—

Population, 16,410.

<i>Mean of 5 years, 1923–1927</i>	...	20.6	11.3	1.13	1.12	3.55	75
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Year—

1927	17.9	10.8	1.07	1.37	6.64	79
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1928	20.1	11.0	0.91	0.85	9.09	78
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Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	−0.5	−0.3	−0.22	−0.27	+5.54	+3
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<i>Previous year</i>	...	+2.2	+0.2	−0.16	−0.52	+2.45	−1
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Littleborough.—

Population, 11,510.

<i>Mean of 5 years, 1923–1927</i>	...	16.2	15.6	0.50	1.67	10.81	87
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Year—

1927	15.6	13.9	0.26	1.24	5.64	67
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1928	15.2	13.2	0.26	1.65	nil	45
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Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	−1.0	−2.4	−0.24	−0.02	−10.81	−42
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<i>Previous year</i>	...	−0.4	−0.7	nil	+0.41	−5.64	−22
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Little Crosby.—

Population, 1,160.

<i>Mean of 5 years, 1923–1927</i>	...	11.1	6.6	0.30	0.79	nil	nil
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Year—

1927	9.1	9.1	1.51	0.75	nil	nil
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1928	9.4	6.0	nil	0.86	nil	181
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Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	−1.7	−0.6	−0.30	+0.07	nil	+181
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<i>Previous year</i>	...	+0.3	−3.1	−1.51	+0.11	nil	+181
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Little Hulton.—

Population, 7,918.

<i>Mean of 5 years, 1923–1927</i>	...	14.9	10.9	0.49	1.02	4.49	93
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Year—

1927	11.9	10.8	0.88	1.00	nil	115
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1928	14.2	9.5	0.63	0.63	17.69	44
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Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	−0.7	−1.4	+0.14	−0.39	+13.20	−49
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<i>Previous year</i>	...	+2.3	−1.3	−0.25	−0.37	+17.69	−71
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					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Little Lever.—										
Population, 5,138.										
<i>Mean of 5 years, 1923–1927</i>					... 14·7	12·7	0·38	0·89	12·84	118
Year—										
1927					... 12·8	10·9	0·39	1·36	nil	60
1928					... 12·2	14·0	0·38	1·16	15·87	95
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -2·5	+1·3	nil	+0·27	+3·03	-23
<i>Previous year</i>					... -0·6	+3·1	-0·01	-0·20	+15·87	+35
Longridge.—										
Population, 4,180.										
<i>Mean of 5 years, 1923–1927</i>					... 16·3	14·4	0·56	1·60	nil	79
Year—										
1927					... 15·0	15·8	0·71	1·43	nil	63
1928					... 19·1	14·8	0·23	0·95	12·50	75
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +2·8	+0·4	-0·33	-0·65	+12·50	-4
<i>Previous year</i>					... +4·1	-1·0	-0·48	-0·48	+12·50	+12
Lytham Saint Anne's (Borough).—										
Population, 25,940.										
<i>Mean of 5 years, 1923–1927</i>					... 11·1	13·4	0·42	1·77	8·62	57
Year—										
1927					... 10·0	13·7	0·53	1·46	8·09	56
1928					... 9·0	11·6	0·61	1·88	8·51	34
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -2·1	-1·8	+0·19	+0·11	-0·11	-23
<i>Previous year</i>					... -1·0	-2·1	+0·08	+0·42	+0·42	-22
Middleton (Borough).—										
Population, 29,010.										
<i>Mean of 5 years, 1923–1927</i>					... 14·5	12·9	0·58	1·43	4·33	68
Year—										
1927					... 14·2	13·0	0·41	1·55	2·43	63
1928					... 14·6	11·2	0·65	1·17	2·35	63
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +0·1	-1·7	+0·07	-0·26	-1·98	-5
<i>Previous year</i>					... +0·4	-1·8	+0·24	-0·38	-0·08	nil
Milnrow.—										
Population, 8,774.										
<i>Mean of 5 years, 1923–1927</i>					... 13·4	13·9	0·59	1·32	6·73	98
Year—										
1927					... 12·6	13·3	0·91	1·03	9·09	100
1928					... 11·1	12·4	1·02	1·02	20·40	40
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -2·3	-1·5	+0·43	-0·30	+13·67	-58
<i>Previous year</i>					... -1·5	-0·9	+0·11	-0·01	+11·31	-60

PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year

Morecambe and Heysham (Borough).—

Population, 22,170.

<i>Mean of 5 years, 1923–1927</i>	...	12·0	15·0	0·77	1·58	1·77	61
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Year—

1927	11·3	15·1	0·85	1·38	nil	63
1928	10·0	14·9	0·54	1·71	4·50	58

Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	–2·0	–0·1	–0·23	+0·13	+2·73	–3
<i>Previous year</i>	...	–1·3	–0·2	–0·31	+0·33	+4·50	–5

Mossley (Borough).—

Population, 12,030.

<i>Mean of 5 years, 1923–1927</i>	...	13·9	13·6	0·68	1·30	16·88	62
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Year—

1927	12·8	13·3	0·41	1·25	19·60	38
1928	12·8	14·9	0·24	1·49	nil	103

Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	–1·1	+1·3	–0·44	+0·19	–16·88	+41
<i>Previous year</i>	...	nil	+1·6	–0·17	+0·24	–19·60	+65

Nelson (Borough).—

Population, 39,560.

<i>Mean of 5 years, 1923–1927</i>	...	12·1	12·2	0·55	1·34	10·95	67
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Year—

1927	11·0	12·9	0·40	1·23	4·56	57
1928	11·5	12·3	0·48	1·71	8·77	54

Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	–0·6	+0·1	–0·07	+0·37	–2·18	–13
<i>Previous year</i>	...	+0·5	–0·6	+0·08	+0·48	+4·21	–3

Newton-in-Makerfield.—

Population, 19,720.

<i>Mean of 5 years, 1923–1927</i>	...	18·9	10·7	0·79	1·16	2·65	73
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Year—

1927	16·8	10·3	0·69	1·39	2·94	50
1928	16·6	9·8	0·55	1·06	3·04	67

Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	–2·3	–0·9	–0·24	–0·10	+0·39	–6
<i>Previous year</i>	...	–0·2	–0·5	–0·14	–0·33	+0·10	+17

Norden.—

Population, 4,426.

<i>Mean of 5 years, 1923–1927</i>	...	12·9	12·1	0·47	1·17	10·52	48
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Year—

1927	11·9	12·3	0·70	0·93	19·60	58
1928	12·8	13·3	0·90	1·12	nil	140

Increase or decrease in 1928 on—

<i>5 years' average, 1923–1927</i>	...	–0·1	+1·2	+0·43	–0·05	–10·52	+92
<i>Previous year</i>	...	+0·9	+1·0	+0·20	+0·19	–19·60	+82

						PER 1,000 OF POPULATION				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Ormskirk.—											
Population, 7,408.											
<i>Mean of 5 years, 1923–1927</i>						... 17·4	14·0	0·83	1·49	4·73	64
Year—											
1927						... 16·4	12·4	0·52	0·78	nil	55
1928						... 16·4	12·1	0·80	2·02	nil	24
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -1·0	-1·9	-0·03	+0·53	-4·73	-40
<i>Previous year</i>						... nil	-0·3	+0·28	+1·24	nil	-31
Orrell.—											
Population, 7,236.											
<i>Mean of 5 years, 1923–1927</i>						... 17·8	11·6	0·64	0·97	3·38	99
Year—											
1927						... 15·7	10·8	0·41	0·83	8·84	97
1928						... 15·4	10·0	nil	0·55	8·92	89
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -2·4	-1·6	-0·64	-0·42	+5·54	-10
<i>Previous year</i>						... -0·3	-0·8	-0·41	-0·28	+0·08	-8
Oswaldtwistle.—											
Population, 14,850.											
<i>Mean of 5 years, 1923–1927</i>						... 15·8	12·9	0·40	1·31	7·70	79
Year—											
1927						... 15·2	13·0	0·46	1·60	13·21	74
1928						... 13·7	13·6	0·60	1·95	9·80	78
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -2·1	+0·7	+0·20	+0·64	+2·10	-1
<i>Previous year</i>						... -1·5	+0·6	+0·14	+0·35	-3·41	+4
Padiham.—											
Population, 11,870.											
<i>Mean of 5 years, 1923–1927</i>						... 14·8	14·2	0·78	1·01	3·00	98
Year—											
1927						... 14·4	16·1	0·82	1·56	nil	74
1928						... 14·0	14·9	0·33	1·26	5·98	113
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -0·8	+0·7	-0·45	+0·25	+2·98	+15
<i>Previous year</i>						... -0·4	-1·2	-0·49	-0·30	+5·98	+39
Poulton-le-Fylde.—											
Population, 3,021.											
<i>Mean of 5 years, 1923–1927</i>						... 17·0	15·5	0·06	1·71	4·08	76
Year—											
1927						... 16·2	15·6	0·33	2·66	20·40	81
1928						... 15·5	12·5	nil	1·65	nil	63
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -1·5	-3·0	-0·06	-0·06	-4·08	-13
<i>Previous year</i>						... -0·7	-3·1	-0·33	-1·01	-20·40	-18

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Preesall.—										
Population, 2,049.										
<i>Mean of 5 years, 1923–1927</i>					... 16·9	14·1	0·65	1·70	nil	79
Year—										
1927					... 11·2	15·9	nil	3·08	nil	nil
1928					... 17·5	15·1	1·46	2·44	nil	27
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +0·6	+1·0	+0·81	+0·74	nil	—52
<i>Previous year</i>					... +6·3	—0·8	+1·16	—0·64	nil	+27
Prescot.—										
Population, 10,110.										
<i>Mean of 5 years, 1923–1927</i>					... 18·9	11·1	0·84	1·05	3·05	86
Year—										
1927					... 16·9	10·5	0·49	1·57	nil	104
1928					... 19·7	10·6	0·49	1·38	5·00	50
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +0·8	—0·5	—0·35	+0·33	+1·95	—36
<i>Previous year</i>					... +2·8	+0·1	nil	—0·19	+5·00	—54
Prestwich.—										
Population, 21,670.										
<i>Mean of 5 years, 1923–1927</i>					... 12·9	9·4	0·58	1·17	4·57	47
Year—										
1927					... 12·7	10·9	0·75	1·32	3·71	52
1928					... 12·3	9·1	0·55	0·87	3·73	48
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... —0·6	—0·3	—0·03	—0·30	—0·84	+1
<i>Previous year</i>					... —0·4	—1·8	—0·20	—0·45	+0·02	—4
Radcliffe.—										
Population, 25,380.										
<i>Mean of 5 years, 1923–1927</i>					... 14·6	13·3	0·55	1·33	3·70	75
Year—										
1927					... 12·6	12·6	0·47	1·61	nil	68
1928					... 13·1	13·8	0·63	1·61	8·98	74
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... —1·5	+0·5	+0·08	+0·28	+5·28	—1
<i>Previous year</i>					... +0·5	+1·2	+0·16	nil	+8·98	+6
Rainford.—										
Population, 3,820.										
<i>Mean of 5 years, 1923–1927</i>					... 18·3	11·1	0·21	1·11	6·40	96
Year—										
1927					... 15·7	8·0	nil	1·03	16·39	49
1928					... 15·9	8·3	0·52	nil	nil	49
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... —2·4	—2·8	+0·31	—1·11	—6·40	—47
<i>Previous year</i>					... +0·2	+0·3	+0·52	—1·03	—16·39	nil

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Ramsbottom.—											
Population, 14,320.											
<i>Mean of 5 years, 1923–1927</i>						... 13·9	13·1	0·53	1·32	8·65	64
Year—											
1927						... 13·6	14·7	0·73	1·34	9·80	73
1928						... 14·0	11·3	0·55	1·74	nil	34
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +0·1	−1·8	+0·02	+0·42	−8·65	−30
<i>Previous year</i>						... +0·4	−3·4	−0·18	+0·40	−9·80	−39
Rawtenstall (Borough).—											
Population, 28,990.											
<i>Mean of 5 years, 1923–1927</i>						... 15·5	13·6	0·64	1·65	6·35	81
Year—											
1927						... 14·2	13·0	0·48	1·79	7·29	58
1928						... 12·6	13·3	0·41	1·41	2·72	70
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −2·9	−0·3	−0·23	−0·24	−3·63	−11
<i>Previous year</i>						... −1·6	+0·3	−0·07	−0·38	−4·57	+12
Rishton.—											
Population, 6,958.											
<i>Mean of 5 years, 1923–1927</i>						... 13·4	13·5	0·53	1·50	8·84	80
Year—											
1927						... 13·1	13·1	0·28	1·14	10·86	54
1928						... 11·4	11·0	1·00	1·43	nil	125
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −2·0	−2·5	+0·47	−0·07	−8·84	+45
<i>Previous year</i>						... −1·7	−2·1	+0·72	+0·29	−10·86	+71
Royton.—											
Population, 17,310.											
<i>Mean of 5 years, 1923–1927</i>						... 15·1	13·6	0·60	1·29	5·15	104
Year—											
1927						... 15·3	11·8	0·29	0·94	3·83	99
1928						... 12·7	14·3	1·32	1·78	nil	100
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −2·4	+0·7	+0·72	+0·49	−5·15	−4
<i>Previous year</i>						... −2·6	+2·5	+1·03	+0·84	−3·83	+1
Skelmersdale.—											
Population, 6,834.											
<i>Mean of 5 years, 1923–1927</i>						... 17·2	10·8	0·51	0·94	1·48	85
Year—											
1927						... 15·7	11·1	0·86	1·15	nil	73
1928						... 15·8	10·9	0·43	0·58	nil	55
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... −1·4	+0·1	−0·08	−0·36	−1·48	−30
<i>Previous year</i>						... +0·1	−0·2	−0·43	−0·57	nil	−18

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Standish-with-Langtree.—											
Population, 7,425.											
<i>Mean of 5 years, 1923–1927</i>						... 17·3	12·2	0·44	0·93	2·56	116
Year—											
1927						... 13·8	12·1	0·13	1·56	nil	150
1928						... 14·2	9·9	0·53	0·67	9·43	75
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -3·1	-2·3	+0·09	-0·26	+6·87	-41
<i>Previous year</i>						... +0·4	-2·2	+0·40	-0·89	+9·43	-75
Stretford.—											
Population, 52,110.											
<i>Mean of 5 years, 1923–1927</i>						... 15·1	11·7	0·74	1·48	5·58	67
Year—											
1927						... 14·4	11·5	0·65	1·66	5·36	68
1928						... 14·7	11·6	0·78	1·72	1·30	71
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -0·4	-0·1	+0·04	+0·24	-4·28	+4
<i>Previous year</i>						... +0·3	+0·1	+0·13	+0·06	-4·06	+3
Swinton and Pendlebury.—											
Population, 34,010.											
<i>Mean of 5 years, 1923–1927</i>						... 14·8	11·1	0·69	1·06	4·86	89
Year—											
1927						... 12·2	10·0	0·69	1·15	4·71	68
1928						... 13·9	10·5	0·49	1·17	4·20	71
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -0·9	-0·6	-0·20	+0·11	-0·66	-18
<i>Previous year</i>						... +1·7	+0·5	-0·20	+0·02	-0·51	+3
Thornton Cleveleys.—											
Population, 9,045.											
<i>Mean of 5 years, 1923–1927</i>						... 16·4	12·8	0·57	1·73	5·16	58
Year—											
1927						... 12·0	12·4	0·74	2·23	nil	51
1928						... 15·0	10·5	0·33	1·21	14·70	58
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -1·4	-2·3	-0·24	-0·52	+9·54	nil
<i>Previous year</i>						... +3·0	-1·9	-0·41	-1·02	+14·70	+7
Tottington.—											
Population, 6,631.											
<i>Mean of 5 years, 1923–1927</i>						... 12·3	13·5	0·52	1·32	7·99	93
Year—											
1927						... 11·9	13·9	0·61	1·83	nil	128
1928						... 10·1	12·3	nil	1·50	14·92	44
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... -2·2	-1·2	-0·52	+0·18	+6·93	-49
<i>Previous year</i>						... -1·8	-1·6	-0·61	-0·33	+14·92	-84

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Trawden.—										
Population, 2,710.										
<i>Mean of 5 years, 1923–1927</i>					... 12·4	13·0	0·36	1·08	nil	130
Year—										
1927					... 12·7	12·7	nil	1·45	nil	142
1928					... 9·5	14·7	0·36	1·10	nil	38
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -2·9	+1·7	nil	+0·02	nil	—92
<i>Previous year</i>					... -3·2	+2·0	+0·36	-0·35	nil	—104
Turton.—										
Population, 12,390.										
<i>Mean of 5 years, 1923–1927</i>					... 13·3	12·1	0·53	1·46	6·44	51
Year—										
1927					... 12·0	14·3	0·73	1·46	20·27	67
1928					... 10·0	13·3	0·56	2·09	8·00	96
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -3·3	+1·2	+0·03	+0·63	+1·56	+45
<i>Previous year</i>					... -2·0	-1·0	-0·17	+0·63	-12·27	+29
Tyldesley-with-Shakerley.—										
Population, 15,560.										
<i>Mean of 5 years, 1923–1927</i>					... 18·5	12·5	0·73	1·00	6·13	84
Year—										
1927					... 16·6	13·5	0·84	1·55	7·78	70
1928					... 16·9	12·5	0·38	1·41	3·78	79
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·6	nil	-0·35	+0·41	-2·35	—5
<i>Previous year</i>					... +0·3	-1·0	-0·46	-0·14	-4·00	+9
Ulverston.—										
Population, 9,104.										
<i>Mean of 5 years, 1923–1927</i>					... 15·5	13·4	0·66	1·65	5·27	63
Year—										
1927					... 14·7	16·3	0·21	1·80	7·19	57
1928					... 13·6	15·2	0·43	2·52	8·06	72
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -1·9	+1·8	-0·23	+0·87	+2·79	+9
<i>Previous year</i>					... -1·1	-1·1	+0·22	+0·72	+0·87	+15
Upholland.—										
Population, 5,896.										
<i>Mean of 5 years, 1923–1927</i>					... 19·2	10·7	0·24	0·82	4·00	79
Year—										
1927					... 17·5	11·7	0·17	0·89	10·20	81
1928					... 15·2	11·3	0·50	1·86	nil	88
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... -4·0	+0·6	+0·26	+1·04	-4·00	+9
<i>Previous year</i>					... -2·3	-0·4	+0·33	+0·97	-10·20	+7

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Urmston.—										
Population, 8,020.										
<i>Mean of 5 years, 1923–1927</i>					... 14·6	10·9	0·54	1·36	3·36	51
Year—										
1927					... 13·2	11·3	0·85	1·70	nil	45
1928					... 12·0	12·3	0·87	2·24	nil	20
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –2·6	+1·4	+0·33	+0·88	–3·36	–31
<i>Previous year</i>					... –1·2	+1·0	+0·02	+0·54	nil	–25
Walton-le-Dale.—										
Population, 12,440.										
<i>Mean of 5 years, 1923–1927</i>					... 16·2	11·8	0·77	1·30	6·96	54
Year—										
1927					... 15·2	13·2	0·56	2·00	nil	57
1928					... 13·5	11·8	0·80	1·60	5·91	88
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –2·7	nil	+0·03	+0·30	–1·05	+34
<i>Previous year</i>					... –1·7	–1·4	+0·24	–0·40	+5·91	+31
Wardle.—										
Population, 4,674.										
<i>Mean of 5 years, 1923–1927</i>					... 15·7	14·3	0·51	0·95	2·53	85
Year—										
1927					... 12·9	16·3	0·64	1·29	nil	100
1928					... 12·8	10·9	0·21	0·64	16·66	33
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –2·9	–3·4	–0·30	–0·31	+14·13	–52
<i>Previous year</i>					... –0·1	–5·4	–0·43	–0·65	+16·66	–67
Waterloo-with-Seaforth.—										
Population—										
For Birth-rate, 31,860.										
For Death-rate, 31,620.										
<i>Mean of 5 years, 1923–1927</i>					... 18·1	11·7	0·95	1·35	3·22	79
Year—										
1927					... 18·0	11·2	0·79	1·43	1·75	50
1928					... 16·7	12·2	1·10	1·54	5·60	67
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –1·4	+0·5	+0·15	+0·19	+2·38	–12
<i>Previous year</i>					... –1·3	+1·0	+0·31	+0·11	+3·85	+17
Westhoughton.—										
Population, 17,510.										
<i>Mean of 5 years, 1923–1927</i>					... 16·7	11·8	0·38	0·71	4·88	90
Year—										
1927					... 14·7	11·9	0·39	0·56	3·84	96
1928					... 13·7	10·2	0·51	0·57	4·14	53
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –3·0	–1·6	+0·13	–0·14	–0·74	–37
<i>Previous year</i>					... –1·0	–1·7	+0·12	+0·01	+0·30	–43

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Whitefield.—											
Population, 7,714.											
<i>Mean of 5 years, 1923–1927</i>						... 14·7	12·2	0·60	1·39	3·94	78
Year—											
1927 ... ..						... 13·1	13·7	0·65	1·31	nil	100
1928 ... ..						... 14·9	12·0	0·77	1·55	nil	95
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +0·2	—0·2	+0·17	+0·16	—3·94	+17
<i>Previous year</i> ... ..						... +1·8	—1·7	+0·12	+0·24	nil	—5
Whitworth.—											
Population, 8,565.											
<i>Mean of 5 years, 1923–1927</i>						... 14·4	15·3	0·84	1·28	nil	85
Year—											
1927 ... ..						... 13·4	17·4	1·28	0·93	nil	95
1928 ... ..						... 14·7	15·9	0·93	1·05	nil	79
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +0·3	+0·6	+0·09	—0·23	nil	—6
<i>Previous year</i> ... ..						... +1·3	—1·5	—0·35	+0·12	nil	—16
Widnes (Borough).—											
Population, 41,010.											
<i>Mean of 5 years, 1923–1927</i>						... 22·7	12·0	0·89	0·95	3·16	82
Year—											
1927 ... ..						... 21·7	12·1	0·91	1·14	3·23	66
1928 ... ..						... 22·2	11·4	0·70	0·99	2·19	78
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... —0·5	—0·6	—0·19	+0·04	—0·97	—4
<i>Previous year</i> ... ..						... +0·5	—0·7	—0·21	—0·15	—1·04	+12
Withnell.—											
Population, 3,409.											
<i>Mean of 5 years, 1923–1927</i>						... 13·2	9·6	0·45	1·13	8·98	63
Year—											
1927 ... ..						... 12·5	10·8	nil	0·85	22·72	nil
1928 ... ..						... 13·4	10·8	0·88	1·17	nil	43
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +0·2	+1·2	+0·43	+0·04	—8·98	—20
<i>Previous year</i> ... ..						... +0·9	nil	+0·88	+0·32	—22·72	+43
Worsley.—											
Population, 14,720.											
<i>Mean of 5 years, 1923–1927</i>						... 13·0	12·6	0·52	1·37	7·72	80
Year—											
1927 ... ..						... 10·5	13·6	0·27	1·77	12·98	64
1928 ... ..						... 12·2	12·6	0·54	1·97	5·55	66
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... —0·8	nil	+0·02	+0·60	—2·17	—14
<i>Previous year</i> ... ..						... +1·7	—1·0	+0·27	+0·20	—7·43	+2

RURAL DISTRICTS.

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Barton-upon-Irwell.—										
Population, 12,830.										
<i>Mean of 5 years, 1923–1927</i>					... 15·2	11·0	0·68	0·98	8·14	58
Year—										
1927					... 16·8	10·8	0·75	1·00	4·97	49
1928					... 16·2	11·6	0·70	0·93	4·80	76
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +1·0	+0·6	+0·02	−0·05	−3·34	+18
<i>Previous year</i>					... −0·6	+0·8	−0·05	−0·07	−0·17	+27
Blackburn.—										
Population, 11,200.										
<i>Mean of 5 years, 1923–1927</i>					... 13·5	11·1	0·59	1·12	3·97	72
Year—										
1927					... 11·5	12·2	0·74	1·11	nil	88
1928					... 10·7	10·4	0·44	0·80	nil	50
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −2·8	−0·7	−0·15	−0·32	−3·97	−22
<i>Previous year</i>					... −0·8	−1·8	−0·30	−0·31	nil	−38
Burnley.—										
Population, 19,200.										
<i>Mean of 5 years, 1923–1927</i>					... 13·4	12·3	0·50	1·08	6·01	74
Year—										
1927					... 11·8	11·8	0·36	0·88	nil	48
1928					... 12·3	12·7	0·52	1·04	4·20	75
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −1·1	+0·4	+0·02	−0·04	−1·81	+1
<i>Previous year</i>					... +0·5	+0·9	+0·16	+0·16	+4·20	+27
Bury.—										
Population, 9,370.										
<i>Mean of 5 years, 1923–1927</i>					... 14·5	12·9	0·61	1·30	4·29	85
Year—										
1927					... 14·5	15·7	0·42	0·94	nil	79
1928					... 14·6	10·8	0·21	1·17	7·29	43
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... +0·1	−2·1	−0·40	−0·13	+3·00	−42
<i>Previous year</i>					... +0·1	−4·9	−0·21	+0·23	+7·29	−36
Chorley.—										
Population, 22,250.										
<i>Mean of 5 years, 1923–1927</i>					... 16·3	12·1	0·43	1·14	6·61	72
Year—										
1927					... 15·3	13·4	0·26	1·34	5·86	70
1928					... 14·7	10·7	0·40	1·48	6·07	66
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... −1·6	−1·4	−0·03	+0·34	−0·54	−6
<i>Previous year</i>					... −0·6	−2·7	+0·14	+0·14	+0·21	−4

						PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
						Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Clitheroe.—											
Population, 8,958.											
<i>Mean of 5 years, 1923–1927</i>						... 12·0	10·3	0·52	1·10	5·73	61
Year—											
1927 ... ..						... 8·2	9·4	0·56	1·68	nil	81
1928 ... ..						... 9·8	8·1	0·11	1·00	nil	34
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... –2·2	–2·2	–0·41	–0·10	–5·73	–27
<i>Previous year</i> ... ..						... +1·6	–1·3	–0·45	–0·68	nil	–47
Fylde.—											
Population, 16,180.											
<i>Mean of 5 years, 1923–1927</i>						... 16·4	11·4	0·37	1·30	6·10	70
Year—											
1927 ... ..						... 14·2	12·1	0·32	1·63	9·21	64
1928 ... ..						... 15·0	9·4	0·24	1·11	12·34	65
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... –1·4	–2·0	–0·13	–0·19	+6·24	–5
<i>Previous year</i> ... ..						... +0·8	–2·7	–0·08	–0·52	+3·13	+1
Garstang.—											
Population, 11,560.											
<i>Mean of 5 years, 1923–1927</i>						... 17·5	12·0	0·40	1·21	4·70	64
Year—											
1927 ... ..						... 15·3	13·3	0·53	1·33	nil	69
1928 ... ..						... 18·6	11·7	0·25	0·77	4·62	41
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... +1·1	–0·3	–0·15	–0·44	–0·08	–23
<i>Previous year</i> ... ..						... +3·3	–1·6	–0·28	–0·56	+4·62	–28
Lancaster.—											
Population, 9,321.											
<i>Mean of 5 years, 1923–1927</i>						... 17·8	13·1	0·51	1·26	4·86	50
Year—											
1927 ... ..						... 17·8	13·1	0·53	1·18	6·02	60
1928 ... ..						... 15·6	12·0	0·32	1·60	nil	54
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... –2·2	–1·1	–0·19	+0·34	–4·86	+4
<i>Previous year</i> ... ..						... –2·2	–1·1	–0·21	+0·42	–6·02	–6
Leigh.—											
Population, 11,780.											
<i>Mean of 5 years, 1923–1927</i>						... 17·1	11·1	0·65	0·96	5·89	74
Year—											
1927 ... ..						... 14·8	11·2	0·94	1·54	nil	63
1928 ... ..						... 16·5	10·6	0·50	1·10	5·12	51
<i>Increase or decrease in 1928 on—</i>											
<i>5 years' average, 1923–1927</i>						... –0·6	–0·5	–0·15	+0·14	–0·77	–23
<i>Previous year</i> ... ..						... +1·7	–0·6	–0·44	–0·44	+5·12	–12

PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year

Limehurst.—

Population—

For Birth-rate, 9,209.

For Death-rate, 9,029.

Mean of 5 years, 1923–1927 ... 16·1 12·2 0·71 1·51 6·92 75

Year—

1927 ... 14·4 12·3 0·45 1·69 7·63 76

1928 ... **13·1** **11·4** **0·22** **1·32** **8·26** **57**

Increase or decrease in 1928 on—

5 years' average, 1923–1927 ... −3·0 −0·8 −0·49 −0·19 +1·34 −18

Previous year ... −1·3 −0·9 −0·23 −0·37 +0·63 −19

Lunesdale.—

Population, 6,318.

Mean of 5 years, 1923–1927 ... 16·6 12·2 0·65 1·12 3·93 47

Year—

1927 ... 17·5 14·3 0·48 0·96 9·17 36

1928 ... **13·1** **11·3** **0·47** **1·10** **nil** **24**

Increase or decrease in 1928 on—

5 years' average, 1923–1927 ... −3·5 −0·9 −0·18 −0·02 −3·93 −23

Previous year ... −4·4 −3·0 −0·01 +0·14 −9·17 −12

Preston.—

Population, 28,060.

Mean of 5 years, 1923–1927 ... 14·6 10·3 0·40 1·00 2·25 69

Year—

1927 ... 14·3 11·4 0·22 1·03 2·59 80

1928 ... **14·0** **10·6** **0·35** **1·21** **12·72** **45**

Increase or decrease in 1928 on—

5 years' average, 1923–1927 ... −0·6 +0·3 −0·05 +0·21 +10·47 −24

Previous year ... −0·3 −0·8 +0·13 +0·18 +10·13 −35

Sefton.—

Population, *2,397.

Mean of 5 years, 1923–1927 ... 15·6 12·0 0·91 1·41 6·16 82

Year—

1927 ... 19·9 12·3 0·86 0·65 nil 65

1928 ... **18·5** **13·0** **1·09** **0·90** **nil** **137**

Increase or decrease in 1928 on—

5 years' average, 1923–1927 ... +2·9 +1·0 +0·18 −0·51 −6·16 +55

Previous year ... −1·4 +0·7 +0·23 +0·25 nil +72

* The adjusted population, rendered necessary by the loss of area on the 1st April, 1928, used by the Registrar-General for the calculation of the birth and death rates is 5,497.

Ulverston.—

Population, 16,500.

Mean of 5 years, 1923–1927 ... 15·4 13·0 0·56 1·63 2·32 58

Year—

1927 ... 15·5 14·3 0·90 1·80 3·86 65

1928 ... **14·6** **13·4** **0·90** **1·63** **8·29** **45**

Increase or decrease in 1928 on—

5 years' average, 1923–1927 ... −0·8 +0·4 +0·34 nil +5·97 −13

Previous year ... −0·9 −0·9 nil −0·17 +4·43 −20

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Warrington.—										
Population, 16,030.										
<i>Mean of 5 years, 1923–1927</i>					... 17·2	10·8	0·66	1·25	6·23	76
Year—										
1927					... 15·4	11·0	0·51	1·18	9·56	62
1928					... 12·7	9·9	0·62	1·06	4·90	68
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –4·5	–0·9	–0·04	–0·19	–1·33	–8
<i>Previous year</i>					... –2·7	–1·1	+0·11	–0·12	–4·66	+6
West Lancashire.—										
Population, 22,880.										
<i>Mean of 5 years, 1923–1927</i>					... 14·7	11·4	0·53	1·44	3·56	58
Year—										
1927					... 14·0	11·4	0·43	1·52	nil	49
1928					... 12·8	11·4	0·30	1·70	6·82	44
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –1·9	nil	–0·23	+0·26	+3·26	–14
<i>Previous year</i>					... –1·2	nil	–0·13	+0·18	+6·82	–5
Whiston.—										
Population, 22,610.										
<i>Mean of 5 years, 1923–1927</i>					... 15·4	9·5	0·53	0·89	4·28	72
Year—										
1927					... 14·3	8·4	0·26	0·62	6·21	96
1928					... 13·5	8·5	0·48	1·10	6·53	55
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –1·9	–1·0	–0·05	+0·21	+2·25	–17
<i>Previous year</i>					... –0·8	+0·1	+0·22	+0·48	+0·32	–41
Wigan.—										
Population, 6,437.										
<i>Mean of 5 years, 1923–1927</i>					... 15·5	11·9	0·37	1·19	nil	101
Year—										
1927					... 13·1	11·5	0·47	1·42	nil	96
1928					... 13·2	11·9	0·62	1·55	nil	70
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>					... –2·3	nil	+0·25	+0·36	nil	–31
<i>Previous year</i>					... +0·1	+0·4	+0·15	+0·13	nil	–26

ADMINISTRATIVE COUNTY.

					PER 1,000 OF POPULATION.				PER 1,000 BIRTHS.	
					Birth-rate	Death-rate	Death-rate from Tuberculosis of Respiratory System	Death-rate from Cancer	Maternal Mortality Rate	Rate of Deaths under 1 year
Aggregate of County Urban										
Districts.—										
Population—										
For Birth-rate, 1,546,030.										
For Death-rate, 1,544,990.										
<i>Mean of 5 years, 1923–1927</i>	...	...	...	...	16·05	12·59	0·68	1·26	5·34	81
Year—										
1927	...	...	...	...	14·59	12·86	0·63	1·35	5·15	74
1928	...	...	...	...	14·64	12·08	0·61	1·41	5·10	71
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>	...	...	...	...	–1·41	–0·51	–0·07	+0·15	–0·24	–10
<i>Previous year</i>	...	...	...	...	+0·05	–0·78	–0·02	+0·06	–0·05	–3
Aggregate of County Rural										
Districts.—										
Population—										
For Birth-rate, 263,090.										
For Death-rate, 262,910.										
<i>Mean of 5 years, 1923–1927</i>	...	...	...	...	15·50	11·54	0·52	1·19	4·80	69
Year—										
1927	...	...	...	...	14·48	11·94	0·47	1·23	3·73	68
1928	...	...	...	...	14·08	10·95	0·45	1·22	6·13	57
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>	...	...	...	...	–1·42	–0·59	–0·07	+0·03	+1·33	–12
<i>Previous year</i>	...	...	...	...	–0·40	–0·99	–0·02	–0·01	+2·40	–11
Administrative County.—										
Population—										
For Birth-rate, *1,809,120.										
For Death-rate, *1,807,900.										
<i>Mean of 5 years, 1923–1927</i>	...	...	...	...	15·98	12·44	0·66	1·25	5·26	79
Year—										
1927	...	...	...	...	14·57	12·72	0·61	1·33	4·94	73
1928	...	...	...	...	14·56	11·91	0·58	1·38	6·06	69
<i>Increase or decrease in 1928 on—</i>										
<i>5 years' average, 1923–1927</i>	...	...	...	...	–1·42	–0·53	–0·08	+0·13	+0·80	–10
<i>Previous year</i>	...	...	...	...	–0·01	–0·81	–0·03	+0·05	+1·12	–4

* For the purpose of calculating the County Birth and Death rates, the Registrar-General's estimated populations are, for Birth-rate 1,812,220, for Death-rate 1,811,000. (See page 7).

*EXTRACT FROM THE METEOROLOGICAL REPORT

BY THE

Rev. E. D. O'CONNOR, S.J., M.A., F.R.A.S.,
OF STONYHURST COLLEGE OBSERVATORY.

SUMMARY OF OBSERVATIONS FOR 1928.

Result of Observations taken during the Year.										Mean for the last 81 years.
READINGS OF BAROMETER IN INCHES.										
Mean of the year	...	...	...	...	...	...	...	...	29.460	29.492
Highest Monthly Mean	(September)	...	...	...	...	...	...	...	29.692	29.742
Lowest	„ (November)	...	...	...	...	...	...	...	29.301	29.224
Highest Reading	(February 19th)	...	...	...	...	...	...	...	30.187	30.293
Lowest	„ (March 30th)	...	...	...	...	...	...	...	28.275	28.208
Range	...	...	...	...	...	...	...	...	1.912	2.085
THERMOMETER, FAHRENHEIT.										
Highest Monthly Mean Temperature	(July)	...	...	...	...	...	...	...	56.5	58.6
Lowest	„ (December)	...	...	...	...	...	...	...	37.7	35.8
Highest Reading of a Max. Therm.	(August 5th)	...	...	...	...	...	...	...	72.2	81.2
Lowest Reading of a Min. Therm.	(December 9th & 15th)	...	...	...	...	...	...	...	23.5	16.6
Range of Thermometer Readings	...	...	...	...	...	...	...	...	48.7	64.6
Mean of Highest Daily Readings	...	...	...	...	...	...	...	...	53.4	54.3
Mean of Lowest Daily Readings	...	...	...	...	...	...	...	...	42.0	41.1
Mean Daily Range	...	...	...	...	...	...	...	...	11.4	13.2
Deduced Mean Temperature (from mean of Max. and Min.)	...	...	...	...	...	...	...	...	46.7	46.7
Mean Temperature from Dry Bulb	...	...	...	...	...	...	...	...	48.0	47.2
Adopted Mean Temperature of the Year	...	...	...	...	...	...	...	...	47.4	46.9
Mean Temperature of Evaporation	...	...	...	...	...	...	...	...	44.8	44.6
Mean Temperature of Dew Point...	...	...	...	...	...	...	...	...	41.3	42.2
Mean elastic force of Vapour	...	...	...	...	...	...	inches	0.266	0.275	
Mean weight of Vapour in a cubic foot of air	...	...	...	...	...	...	grains	3.0	3.2	
Mean additional weight required for saturation	...	...	...	...	...	...	grains	0.9	0.7	
Mean degrec of Humidity (saturation 100)	...	...	...	...	...	...	...	77	84	
Mean weight of a cubic foot of air	...	...	...	...	...	...	grains	537.4	539.0	
Mean amount of Cloud (0—10)	...	...	...	...	...	...	...	7.0	7.3	
Total fall of Rain	...	...	...	...	...	...	inches	60.344	47.501	
Greatest Monthly Rainfall (January)	...	...	...	...	...	...	„	12.267	7.623	
Least	„ (May)	...	...	...	...	...	„	0.905	1.260	
Greatest Rainfall in one day (January 12th)	...	...	...	...	...	...	„	1.610	1.653	
No. of days per Month on which .005 inch or more rain fell	...	...	...	...	...	...	...	17.8	17.3	

SUMMARY OF WIND.

Prevailing direction	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
No. of days for each 	19	64	22	15	51	108	68	19
Mean Velocity in miles per hour ...	7.6	7.7	9.1	12.2	11.6	12.6	10.2	7.0
Total No. of miles for each direction ...	3469	11782	4819	4405	14263	32756	16658	3207
								Mean for the last 61 years.
Total No. of miles registered 						91359	85188.2	
Greatest Monthly Total (January) 						10544	9933.4	
Least " " (September) 						4757	4926.7	
Greatest recorded hourly velocity (November 23rd) 						52	50.3	
Prevailing Direction of Wind 						S.W	W	

*Introduced by kind permission.